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FM 7-11H3/4

SOLDIER'S MANUAL

HEAVY ANTIARMOR WEAPONS CREWMAN

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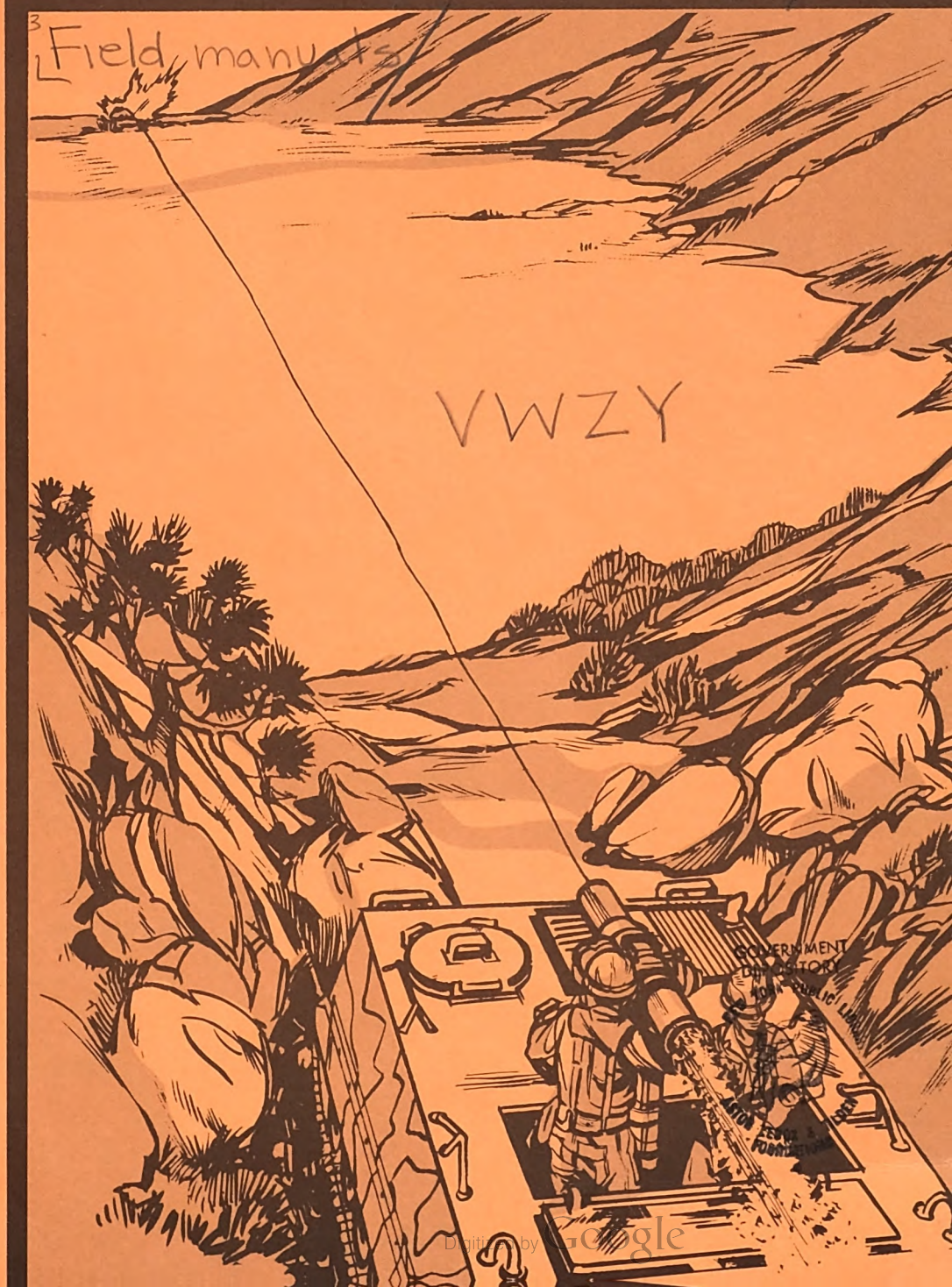

SKILL LEVELS 3 AND 4

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FIELD MANUAL
No. 7-11H3/4

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC, 16 November 1979

SOLDIER'S MANUAL

MOS 11H SKILL LEVEL 3/4
HEAVY ANTIARMOR WEAPONS CREWMAN

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COMMANDER'S ATTENTION

Soldier's Manuals are designed to tell soldiers what tasks they must be proficient in to be MOS qualified. If soldiers follow the road map these manuals provide, they should progress readily to positions of responsibility commensurate with their aptitude and motivation.

Initial distribution of Soldier's Manuals will be made to the unit level, based upon assigned strength in the particular MOS and Skill Level. In the event additional manuals are needed by the unit for MOS study, libraries, or other training needs, requests for publications may be sent directly to the US Army Publications Center, 2800 Eastern Boulevard, Baltimore, MD 21220.

When soldiers are issued Soldier's Manuals by their units, they are responsible for retaining and maintaining them. If they transfer, they must return the manuals to their units.

Upon promotion to grades E5, E6, E7, or E8, the soldier may order his next higher level manual directly from the preparing agency.

> To comply with guidance of the Assistant Secretary of Defense (Manpower and Reserve Affairs), this Soldier's Manual has been reviewed for the use of neuter language. Unless otherwise noted, the third person singular "he" stands for both masculine and feminine genders.

To assist you in your training of SM tasks, new or different material than that found in the same task in the 11B and 11C series SM has been identified by a star (★).

This Soldier's Manual was prepared by the US Army Infantry School.

David E. Grange Jr.

DAVID E. GRANGE, JR
Major General, USA
Commandant

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RESERVE COMPONENT COMMANDER

ARMY NATIONAL GUARD ARMY RESERVE

The information on this page is for you, the Reserve/Guard component commander. Although this manual lists the critical tasks to be performed by the Active Army soldier in this MOS on equipment available in the Active Army inventory, most tasks in this manual are applicable to reservists/guardsmen without changes. However, some tasks may require modification because of differences of equipment, facilities, and training time available. Because of these differences, you, as a Reserve/Guard component commander, will need to be innovative and seek ways to enable your soldiers to accomplish their critical tasks.

This manual has been reviewed by an Army Readiness Region to add or delete Reserve Component (RC) peculiar tasks. It may not be completely applicable to all RC units. However, you must train your soldiers as completely as possible using all of the resources available to you, to include: ETV, simulators, TEC and other such training aids. Any major difficulties encountered in training your soldiers should be reported to the Infantry School.

Many tasks learned in basic combat training and advanced individual training are in this manual. There are other critical tasks that your reservists/guardsmen must learn on their own. Study materials have been prepared and can be ordered from the proponent agency. Your job is to make sure that the necessary study materials are available in your unit training center.

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COLLATING INSTRUCTIONS

SOLDIER'S MANUAL
11H30 — HEAVY ANTIARMOR INFANTRYMAN — 11H40
Skill Level 3/4

The new Table of Contents, Introduction, and Tasks contained in this document provide for upgrading and updating FM 7-11H1/2, dated 16 November 1979, to form FM 7-11H1/2, dated 16 November 1979, for Skill Level 3 and 4 soldiers (E6 and E7).

ATTENTION:

Collating your manuals is not a requirement. However, USAIS suggests that you do collate them.

FM 7-11H1/2, dated 16 November 1979, is updated as follows:

1. Remove the following from FM 7-11H1/2:

Front cover
Pages i thru iv

2. Insert the following pages as indicated below:

MAJOR AREA	ADD PAGES	AFTER PAGE
Front Cover — SL3/4	N/A	N/A
Contents and Commander's Attentions SL3/4	Pages i thru vi	Cover
SL3 and 4 Introductions and Road Maps	Section III divider sheet thru 1-III-B-12	1-II-B-11
Nuclear, Biological, and Chemical	2-I-B-19.1 thru 2-I-B-31.3	2-I-B-18.2
Individual Fitness	2-I-C-2.1 thru 2-I-C-2.6	2-I-C-1.2
Basic Individual Techniques	2-II-A-13.1 thru 2-II-A-14.3	2-II-A-12.2
Security and Intelligence	2-II-C-11.1 thru 2-II-C-11.3	2-II-C-11.5

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MAJOR AREA	ADD PAGES	AFTER PAGE
Light Antitank Weapon (LAW)	2-III-B-4.1 thru 2-III-B-4.5	2-III-B-3.2
TOW	2-V-A-14.1 thru 2-V-A-14.2	2-V-A-13.5
Leadership	2-VII-A-5.1 thru 2-VII A-6.6	2-VII-A-4.6
Training	2-VII-B-3.1 thru 2-VII-C-3.2	2-VII-B-1.3
Tactics	Introduction to tactics; 2-VIII-A-1.1 and 2-VIII-A-1.2	Cover Sheet Section VIII
Basic Tactics	2-VIII-A-8.1 thru 2-VIII-A-12.6	2-VIII-A-7.4
All remaining pages (Offense and Defense)	2-VIII-B-1.1 thru 2-VIII-C-1.2	2-VIII-A-12.6
Appendix B	B-1 thru 2	A-10
Consolidated List of References (FM 7-11H3/4)		
Questionnaire and Reorder Form		B-2

3. File this change sheet in front of the publication for reference purposes. The proponent agency of this field manual is the United States Army Infantry School. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) or the questionnaire provided with this manual direct to Commandant, United States Army Infantry School, ATTN: ATSH—I—V—ED, Fort Benning, Georgia 31905.

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CHAPTER 1

HEAVY ANTIARMOR INFANTRYMAN

SECTION III
INTRODUCTION AND ROAD MAP
SKILL LEVELS 3 AND 4

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CHAPTER 1

SECTION III
INTRODUCTION
SKILL LEVEL 3 AND 4

HOW TO USE THE SOLDIER'S MANUAL

Refer to the Introduction to Skill Level 1, pages 1-I-A-1 thru 1-I-A-5, for an explanation of a Soldier's Manual. Refer to pages 1-I-A-7 thru 1-I-A-9 for an explanation of a Task Summary.

COMMON TASKS

This Soldier's Manual contains basic combat tasks that all 11H30 and 11H40 Heavy Antiarmor Infantrymen must be able to perform. These tasks are listed on the Road Map for Skill Level 3/4 in chapter 1 under COMMON TASKS for all Skill Level 3/4 Heavy Antiarmor Infantrymen. The Road Map will tell you the page on which each task can be found.

DUTY POSITIONS TASKS

Your duty position may require you to do some add-on tasks. The table below lists the duty positions which require add-on tasks and the number of add-on tasks required. A list of tasks for each duty position and the page on which each task can be found are listed on the Road Map for Skill Level 3/4 in chapter 1 under DUTY POSITIONS TASKS.

DUTY POSITION	NUMBER OF TASKS
TOW Section Leader	10
ITV Section Leader (omitted)	TBP
Platoon Sergeant (TOW)	10
Platoon Sergeant (ITV) (Omitted)	TBP

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SECTION SERGEANT (E6)

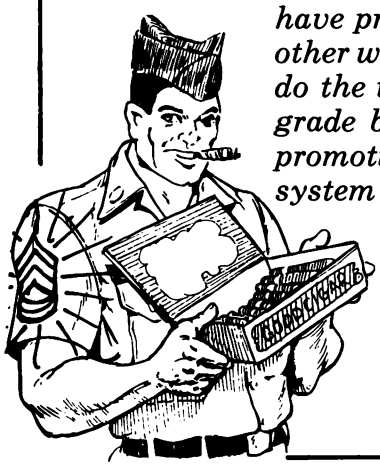
At Skill Level 1, you were concerned with individual tasks. These were tasks aimed at qualifying you as a member of the Heavy Antiarmor Weapons team. While you had to be aware of other members' actions, you were only responsible for your own. At Skill Level 2, you began to pick up the responsibilities of a leader. Now, as a Skill Level 3 Infantryman, your leadership role is greatly expanded. At Skill Level 3, you are given tasks which test your ability to lead. You are responsible for the actions of others as well as your own. You must not only be aware of what others are doing, you must also CONTROL that action. You ar expected to not only master the basic combat skills, but train others to a high degree in these skills, and to insure they properly apply these skills in combat. The tactical training guidelines on page 2-VIII-A-1.1 go into more details as to how this demanding new role applies to you and your responsibility to prepare your squad/section to fight and win on the battlefield.

PLATOON SERGEANT (E-7)

At Skill Levels 1 and 2, you were concerned with individual tasks. These tasks were aimed at qualifying you as a member of one of the elements of the Light Weapons Team. While you had to be aware of other member's actions, you were only responsible for your own. At Skill Level 3 you were given tasks that tested your ability to lead; your responsibilities became more complex at that level. You not only had to be aware of what others were doing, you had to CONTROL their collective actions. You were expected to master those combat skills, to train others to a high degree and to insure that the skills are applied in combat. At Skill Level 4, your responsibilities are even more complex that at Skill Level 3. You are now responsible for the administration, tactical employment, and training of your platoon to meet or exceed the standards set forth in your unit's ARTEP.

HOW TO PREPARE YOURSELF FOR PROMOTION

The Army will only promote men who have proved that they can do the job. In other words, you must show that you can do the tasks required of the next higher grade before you can be considered for promotion to that grade. Here is how the system works:



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SECTION SERGEANT (E6)

1. LEARN THE TASKS IN THIS MANUAL that apply to you. As soon as you have done that,

2. Then LEARN THE BASIC TASKS FOR SKILL LEVEL 4. There will not be as much new material as you might think since many of the skills that you learned for Skill Level 3 will also apply to Skill Level 4.

Also while you are E6, you may ATTEND THE ADVANCED NONCOMMISSIONED OFFICER'S COURSE(**ANCOC**). In this course, you will build on the skills you developed during unit training and gain leadership experience to help you perform more effectively.

PLATOON SERGEANT (E-7)

1. LEARN THE TASKS IN THIS MANUAL that apply to you. As soon as you have done that, ask for a copy of FM 7-11B5 Soldier's Manual (for Skill Level 5).

2. Then LEARN THE TASKS IN THE SKILL LEVEL 5 MANUAL. Many of the tasks you have learned at preceding skill levels will also apply to you at SKILL LEVEL 5.

Also while you are an E7, you should start taking subcourses from the Senior Noncommissioned Officer's Non-Resident Course (SNCOC) which pertain to your duty position. These courses will help you develop skills which are required for promotion.

3. As an E6 or E7, you will TAKE A SKILL QUALIFICATION TEST (SQT). The SQT will test your ability to do the tasks in the Soldier's Manual. You must make 80% or above on the SQT to qualify for promotion. Since the SQT will use the same conditions and standards used in the Soldier's Manual you will be able to prepare in advance for the SQT.

4. The SQT has three parts: skill component, hands-on and performance certification. Sixty to ninety days before the SQT is given, an SQT notice will be sent to each unit. It will tell which tasks will be tested in each part of the SQT. It will also tell how the task will be tested. There are three different ways to test a task. First, you may be asked to answer a **written question** (skill component) about how a task is performed. You will pick the correct answer from a list of answers and mark the correct answer on a answer sheet. Second, you may be asked to actually do the task. For example, you may be given an M72A2 LAW and be asked to prepare it for firing. This is called a **hands-on test** which means you are actually required to do the task as you would on the job. Third, your unit commander may observe your performance of a task and report your ability **(performance certification)** to perform it as part of your SQT score. Your performance on all three parts of the test will be reported to you sometime soon after you complete the SQT. You will be told which tasks you did not perform well. You can use your Soldier's Manual to improve your performance in those areas.

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5. In addition to the SQT, you will RECEIVE A SENIOR ENLISTED EVALUATION REPORT (SEER). In the SEER, your supervisor will give his opinion of your performance on the job. Both the SQT and SEER will be used to determine your future.

6. If you don't understand any parts of the manual or want to know more about advancement opportunities, see your platoon sergeant. Take advantage of his knowledge and experience.

7. At the top of your enlisted chain of command is your sergeant major. He is an expert in helping soldiers learn about training, evaluation, and the system for getting ahead in the Army. As such, he is responsible for insuring that NCOs senior to you either provide the assistance you need or refer you to him for his guidance and help.

8. The Army wants and needs well-trained soldiers who desire to advance through the ranks. This manual and the willing assistance of senior NCOs are the tools you can use to your advantage and the Army's.

A NOTE TO TRAINERS

In these days of constant readiness, we are faced with the problem of training leaders who are ready to go NOW. We must look for dominant personalities and put them in command. Our squad and HAW section leaders must build word pictures and issue specific, unmistakable instructions. Nothing can be left to chance or doubt.

To decide under fire -- where the enemy is -- how to approach him -- how to use the terrain -- how to control his teams -- inspire his men -- and how to keep the squad's mental picture alive is challenge enough for any man. Your unit training program should be based on how well your squad and HAW section leaders can perform the combat tasks contained in Soldier's Manuals. After you determine the proficiency level of your leaders, train them in the areas of poor performance first.

The ARTEP provides the basis for your unit training. It sets forth the missions which your squads/sections will have to perform frequently in combat and identifies the collective skills associated with these missions. The ARTEP establishes the **MINIMUM STANDARDS** your squads/sections must achieve in training if they are to **FIGHT** and **WIN** on the **BATTLEFIELD.**

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ROAD MAP
FOR
HEAVY ANTIARMOR INFANTRYMAN
SKILL LEVEL 3/4

COMMON TASKS
FOR ALL SKILL LEVEL 3/4
HEAVY ANTIARMOR INFANTRYMEN

NOTE: (SECTION SERGEANT (E6)).
1. TASKS MARKED (SL1 and 2) WERE SKILL LEVEL 1 AND 2 SOLDIERS' TASKS AND ARE NOW YOUR RESPONSIBILITY.
2. TASKS MARKED 3 IN THE SL COLUMN ARE YOUR NEW SKILL LEVEL 3 TASKS.

NOTE: (PLATOON SERGEANT (E7))
1. TASKS MARKED (SL 1, 2, and 3) WERE SKILL LEVEL 1, 2, AND 3 SOLDIERS' TASKS AND ARE NOW YOUR RESPONSIBILITY.
2. TASKS MARKED 4 IN THE SL COLUMN ARE YOUR NEW SKILL LEVEL 4 TASKS.

BATTLEFIELD SURVIVAL

TASK NUMBER	FIRST AID	SL	PAGE
	Introduction to first aid.	1	2-1-A-1.1
081-831-1004	Perform mouth-to-mouth resuscitation and external heart massage.	1	2-1-A-2.1
081-831-1005	Stop bleeding (arm or leg).	1	2-1-A-3.1
081-831-1006	Identify signs of and treat for shock.	1	2-1-A-4.1
081-831-1007	Splint a fracture.	1	2-1-A-5.1
081-831-1008	Apply first aid measures for burns.	1	2-1-A-6.1
081-831-1010	Apply first aid for sun or heat injuries.	1	2-1-A-7.1
081-831-1011	Apply first aid for wet or cold injuries.	1	2-1-A-8.1

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NUCLEAR, BIOLOGICAL, AND CHEMICAL (NBC)

TASK NUMBER		SL	PAGE
092-503-1001	Perform operator's maintenance on an M17 series protective mask.	1	2-I-B-1.1
092-503-1010	Exchange filters on an M17 series protective mask.	1	2-I-B-2.1
092-503-1002	Put on and wear a protective mask.	1	2-I-B-3.1
092-503-1015	Put on and wear protective clothing.	1	2-I-B-4.1
092-503-1007	Decontaminate self.	1	2-I-B-5.1
092-503-1008	Decontaminate individual equipment.	1	2-I-B-6.1
092-503-1014	Identify a chemical agent using ABC-M8 detector paper.	1	2-I-B-7.1
092-503-1006	Give visual, vocal, and sound alarms for a chemical or biological attack.	1	2-I-B-8.1
092-503-1009	Satisfy personal needs in a chemical environment.	1	2-I-B-9.1
092-503-1005	Protect self against a nuclear hazard.	1	2-I-B-10.1
081-831-1012	Administer antidote to a nerve-agent casualty.	1	2-I-B-11.1
081-831-1017	Administer first aid to blood-agent casualty.	1	2-I-B-12.1
081-831-1015	Give back-pressure armlift artificial resusciation to a chemical-agent casualty.	1	2-I-B-13.1
081-831-1014	Apply mask-to-mouth resusciation to a chemical-agent casualty.	1	2-I-B-14.1
092-503-1004	Recognize and protect self against a chemical/biological (CB) hazard.	1	2-I-B-15.1
092-503-2002	Decontaminate equipment using ABC-M11 decontamination apparatus.	2	2-I-B-16.1
092-503-2007	Ignite smoke pots.	2	2-I-B-17.1
092-503-2001	Read and report radiation dosages.	2	2-I-B-18.1
092-503-3003	Operate an IM174 series radiacmeter.	3	2-I-B-19.1
031-503-3009	Operate the AN/PDR-27 radiac set.	3	2-I-B-20.1
092-503-3006	Decontaminate unit equipment.	3	2-1-B-21.1
092-503-3005	Prepare and submit NBC 1 Report.	3	2-I-B-22.1

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COMMON TASKS - (NBC CONTINUED)

TASK NUMBER		SL	PAGE
092-503-3007	Prepare supplies and equipment for NBC attack.	3	2-I-B-23.1
092-503-3002	Initiate unmasking procedures.	3	2-I-B-24.1
092-503-1109	Cross a contaminated area.	3	2-I-B-25.1
092-503-3008	Implement mission-oriented protective posture (MOPP).	3	2-I-B-26.1
092-503-4115	Employ smoke pots.	3	2-I-B-27.1
092-503-4116	Supervise use of unit radiac equipment.	4	2-I-B-28.1
031-503-4003	Supervise tactical dosimentry operations.	4	2-I-B-29.1
092-503-4004	Prepare and submit NBC-4 Report.	4	2-I-B-30.1
092-503-4117	Plan for unit decontamination of equipment.	4	2-I-B-31.1

INDIVIDUAL FITNESS

071-327-0201	Maintain an appropriate level of physical fitness (male only).	1	2-I-C-1.1
071-327-0202	Lead physical conditioning activities.	3	2-I-C-2.1

COMBAT TECHNIQUES

BASIC INDIVIDUAL TECHNIQUES

071-326-0502	Move under direct fire.	1	2-II-A-1.1
071-326-0510	React to indirect fire.	1	2-II-A-2.1
071-326-0511	React to flares.	1	2-II-A-3.1
071-326-0503	Move over, through, or around obstacles.	1	2-II-A-4.1
071-326-0512	Estimate range.	1	2-II-A-5.1
071-326-0513	Select temporary battlefield positions.	1	2-II-A-6.1
071-326-5703	Construct individual fighting position.	1	2-II-A-7.1
071-326-0600	Use visual signals to control movement (dismounted).	1	2-II-A-8.1
071-329-1021	Determine an enemy target location using grid coordinates.	2	2-II-A-9.1

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COMMON TASKS - (BASIC INDIVIDUAL TECHNIQUES CONTINUED)

TASK NUMBER		SL	PAGE
061-283-6002	Locate a target by shift from a known point.	2	2-II-A-10.1
061-283-6003	Call for/adjust indirect fire.	2	2-II-A-11.1
071-326-5704	Supervise/evaluate construction of a fighting position.	2	2-II-A-12.1
081-889-0001	Request/control medical air evacuation of casualty/casualities.	3	2-II-A-13.1
071-326-0515	Select a movement route using a map.	4	2-II-A-14.1

CAMOUFLAGE, COVER, AND CONCEALMENT

051-202-1001	Camouflage/conceal self and individual equipment.	1	2-II-B-1.1
051-202-1002	Camouflage/conceal equipment.	1	2-II-B-2.1
051-202-1003	Camouflage/conceal defensive positions.	1	2-II-B-3.1

SECURITY AND INTELLIGENCE

071-331-0801	Use challenge and password.	1	2-II-C-1.1
071-331-0802	Process known or suspected enemy personnel.	1	2-II-C-2.1
071-331-0803	Collect/report information - SALUTE.	1	2-II-C-3.1
071-331-0804	Conduct day and night surveillance without the aid of electronic devices.	1	2-II-C-4.1
071-331-0806	Identify opposing force (OPFOR) armored vehicles.	1	2-II-C-5.1
071-331-0808	Identify opposing force (OPFOR) weapons and equipment.	1	2-II-C-6.1
071-331-0807	Enforce noise, light, and litter discipline.	2	2-II-C-7.1
071-331-0809	Emplace and recover field expedient warning devices.	2	2-II-C-8.1
071-331-0810	Emplace/recover pyrotechnic early warning devices.	2	2-II-C-9.1
071-331-0811	Emplace/recover electronic anti-intrusion devices.	2	2-II-C-10.1
071-331-0820	Analyze terrain using the 5 military aspects of terrain.	3	2-II-C-11.1

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COMMUNICATIONS

TASK NUMBER		SL	PAGE
113-600-3001	Perform operator preventive maintenance on telephone set (TA-312/PT or TA-1/PT).	1	2-II-D-1.1
113-600-1001	Install telephone set (TA-312/PT or TA-1/PT).	1	2-II-D-2.1
113-587-3005	Perform operator maintenance on radio sets; AN/PRC-77 or AN/VRC-64.	1	2-II-D-3.1
113-587-2001	Operate radio set AN/PRC-77 or AN/PRC-25.	1	2-II-D-4.1
113-573-8001	Use an automated CEOI.	1	2-II-D-5.1
113-571-2001	Use KAL-61B 1400 numerical code to authenticate transmissions and encrypt/decrypt numbers and grid zone letters.	1	2-II-D-6.1
113-571-2002	Encode and decode messages using a KTC-600 tactical operations code.	1	2-II-D-7.1
113-571-1003	Establish and enter or leave a radio net.	1	2-II-D-8.1
113-571-1001	Transmit and receive a radio message.	1	2-II-D-9.1

LAND NAVIGATION

	Introduction to land navigation.	1	2-II-E-1.1
071-329-1001	Identify terrain features (natural and man-made) on the map.	1	2-II-E-2.1
071-329-1002	Determine the grid coordinates of a point on a military map using the military grid reference system.	1	2-II-E-3.1
071-329-1010	Determine azimuths using a coordinate scale and protractor.	1	2-II-E-4.1
071-329-1009	Convert azimuths (magnetic or grid).	1	2-II-E-5.1
071-329-1003	Determine a magnetic azimuth using a compass.	1	2-II-E-6.1
071-329-1018	Determine direction using field expedient methods.	1	2-II-E-7.1
071-329-1006	Navigate from one position on the ground to another point.	2	2-II-E-8.1
071-329-1007	Determine distance while moving between two points on the ground.	2	2-II-E-9.1

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COMMON TASKS - (LAND NAVIGATION CONTINUED)

TASK NUMBER		SL	PAGE
071-329-1008	Measure distance on a map.	2	2-II-E-10.1
071-329-1004	Determine the elevation of a point on the ground using a map.	2	2-II-E-11.1
071-329-1011	Orient a map using a compass.	2	2-II-E-12.1
071-329-1005	Determine a location on the ground by terrain association.	2	2-II-E-13.1
071-329-1012	Orient a map to the ground by map-terrain association.	2	2-II-E-14.1
071-329-1014	Locate an unknown point on a map or on the ground by intersection.	2	2-II-E-15.1
071-329-1015	Locate an unknown point on a map or on the ground by resection.	2	2-II-E-16.1

WEAPONS

M16A1 RIFLE

	Introduction -- M16A1 Rifle.	1	2-III-A-1.1
071-311-2001	Perform operator maintenance on an M16A1 rifle, magazine, and ammunition.	1	2-III-A-2.1
071-311-2003	Load, reduce a stoppage, and clear an M16A1 rifle.	1	2-III-A-3.1
071-311-2004	Battlesight zero an M16A1 rifle.	1	2-III-A-4.1
071-311-2007	Qualify with the M16A1 rifle.	1	2-III-A-5.1
071-311-2006	Use limited visibility firing techniques with the M16A1 rifle.	1	2-III-A-6.1

LIGHT ANTITANK WEAPON (LAW)

071-318-2201	Prepare an M72A2 LAW for firing; restore M72A2 LAW to carrying configuration.	1	2-III-B-1.1
071-318-2202	Engage targets with an M72A2 LAW.	1	2-III-B-2.1
071-318-2203	Apply immediate action to correct a malfunction on an M72A2 LAW.	1	2-III-B-3.1
071-318-2206	Supervise the preparation of practice rocket launcher, M190 for firing.	3	2-III-B-4.1

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CALIBER .45 PISTOL

TASK NUMBER		SL	PAGE
191-376-0105	Maintains a caliber .45 pistol.	1	2-III-C-1.1
191-376-0104	Engage targets with a caliber .45 pistol.	1	2-III-C-2.1

HAND GRENADES, MINES, AND DEMOLITIONS

HAND GRENADES

071-325-4401	Perform safety checks on hand grenades.	1	2-IV-A-1.1
071-325-4402	Engage enemy targets with hand grenades.	1	2-IV-A-2.1
071-325-4405	Identify and employ hand grenades.	1	2-IV-A-3.1

MINES

051-192-1502	Install and fire/recover an M18A1 claymore mine.	1	2-IV-B-1.1
051-192-1505	Install the M18A1 claymore with tripwires.	1	2-IV-B-2.1
051-192-1506	Disarm the M18A1 claymore (with tripwires)		2-IV-B-3.1
051-192-1008	Install the M21 metallic antitank (AT) mine.	1	2-IV-B-4.1
051-192-1018	Disarm the M21 metallic antitank mine.	1	2-IV-B-5.1
051-192-1002	Install the M16A1 bounding antipersonnel mine (with/without tripwires).	1	2-IV-B-6.1
051-192-1012	Disarm the M16A1 bounding antipersonnel mine equipped with and without tripwires.	1	2-IV-B-7.1
051-192-1021	Locate mines by visual means.	1	2-IV-B-8.1
051-192-1022	Locate mines by probing.	1	2-IV-B-9.1
051-192-1501	Neutralize enemy mines.	1	2-IV-B-10.1

DEMOLITIONS

051-193-1503	Construct a nonelectric (initiation) detonating assembly.	2	2-IV-C-1.1
051-193-1003	Prime a demolition block nonelectrically.	2	2-IV-C-2.1

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COMMON TASKS - (DEMOLITION CONTINUED)

TASK NUMBER		SL	PAGE
051-193-1004	Construct an electric (initiation) detonating assembly.	2	2-IV-C-3.1
051-193-1005	Prime demolition block electrically.	2	2-IV-C-4.1
051-193-1006	Connect electrical firing circuits.	2	2-IV-C-5.1
051-193-1010	Install firing devices on standard military explosives.	2	2-IV-C-6.1
051-193-1501	Prepare and detonate explosives using detonating cord.	2	2-IV-C-7.1
051-193-1502	Clear demolition misfires (above ground).	2	2-IV-C-8.1

ANTIARMOR

TOW

TASK NUMBER		SL	PAGE
	Introduction to TOW.		2-V-A-1.1
071-316-2500	Assemble the TOW launcher.	1	2-V-A-2.1
071-316-2501	Perform operator maintenance on a TOW launcher.	1	2-V-A-3.1
071-316-2502	Conduct a system self-test and preoperational inspection of a TOW launcher and encased missile.	1	2-V-A-4.1
071-316-2515	Install the TOW launcher and encased missile on its organic carrier (for extended travel).	1	2-V-A-5.1
071-316-2516	Determine TOW firing limitations.	1	2-V-A-6.1
071-316-2503	Load, arm, and unload an encased TOW missile.	1	2-V-A-7.1
071-316-2505	Determine if a target can be engaged by TOW.	1	2-V-A-8.1
071-316-2519	Engage a target with a TOW.	1	2-V-A-9.1
071-316-2504	Perform immediate action for a TOW misfire.	1	2-V-A-10.1
071-316-2521	Prepare an antiarmor range card (TOW).	1	2-V-A-11.1

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COMMON TASKS - (TOW CONTINUED)

TASK NUMBER		SL	PAGE
071-316-2602	Supervise combat loading of personnel and equipment in organic vehicle.	2	2-V-A-12.1
071-316-2603	Supervise construction and camouflage of a TOW fighting position.	2	2-V-A-13.1
071-316-2800	Manage TOW Battery Program.	4	2-V-A-14.1

TACTICAL VEHICLES

WHEELED VEHICLES

071-333-6001	Drive a wheeled vehicle cross-country.	2	2-VI-A-1.1
071-333-6002	Drive a wheeled vehicle on roads, in vehicle parks, and in built-up areas.	2	2-VI-A-2.1
071-333-6003	Drive a wheeled vehicle using blackout drive.	1	2-VI-A-3.1
071-333-6004	Start a wheeled vehicle engine using auxiliary power (M151, M715, and M561).	1	2-VI-A-4.1
071-333-6007	Perform operator maintenance on a wheeled vehicle.	1	2-VI-A-5.1
071-333-6008	Recover a wheeled vehicle.	1	2-VI-A-6.1

TRACKED VEHICLES (MECHANIZED UNITS ONLY)

071-333-6508	Perform operator maintenance on a tracked vehicle.	1	2-VI-B-1.1
071-333-6502	Drive a tracked vehicle on roads, in vehicle parks, and in built-up areas.	1	2-VI-B-2.1
071-333-6500	Drive a tracked vehicle (M113A1 or M901).	1	2-VI-B-3.1
071-333-6512	Negotiate obstacles in a tracked vehicle (M113A1 or M901).	1	2-VI-B-4.1
071-333-6505	Start a tracked vehicle engine using auxiliary power.	1	2-VI-B-5.1
071-333-6503	Drive a tracked vehicle with night vision devices, infrared equipment, and blackout drive.	1	2-VI-B-6.1
071-333-6504	Operate a tracked vehicle in water.	1	2-VI-B-7.1

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COMMON TASKS - (TRACKED VEHICLE (MECHANIZED UNITS ONLY) CONTINUED)

TASK NUMBER		SL	PAGE
071-333-6509	Recover a tracked vehicle using field expedients.	1	2-VI-B-8.1

LEADERSHIP AND TRAINING

LEADERSHIP

071-328-5301	Inspect personnel/equipment.	2	2-VII-A-1.1
071-328-5302	Supervise maintenance on individual and TOE equipment.	2	2-VII-A-2.1
071-328-5304	Enforce preventive medicine program (includes personal hygiene.	2	2-VII-A-3.1
121-030-2501	Prepare the rater's section of an Enlisted Evaluation Report (EER).	2	2-VII-A-4.1
071-328-5306	Advise personnel preparing for Skill Qualification Test (SQT).	3	2-VII-A-5.1
121-030-3501	Prepare the indorser's section of an Enlisted Evaluation Report (EER).	3	2-VII-A-6.1
121-030-4501	Prepare the rater's section of a Senior Enlisted Evaluation Report (SEER).	4	2-VII-A-7.1

TRAINING

874-896-2001	Conduct a performance-oriented training session.	2	2-VII-B-1.1
874-896-3001	Prepare and conduct a performance oriented training session (individual and collective).	2	2-VII-B-2.1
874-896-4001	Monitor and evaluate training.	4	2-VII-B-3.1

ADMINISTRATION

091-504-4001	Establish priorities for general maintenance.	4	2-VII-C-1.1
101-521-4051	Request supplies and logistical services.	4	2-VII-C-2.1
121-030-1502	Maintain accountability of personnel (status report, casualty report).	4	2-VII-C-3.1

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TACTICS

BASIC TACTICS

TASK NUMBER		SL	PAGE
	Introduction to tactics.	3	2-VIII-A-1.1
071-316-2550	Occupy a TOW firing position.	2	2-VIII-A-2.1
071-316-2552	Control TOW squad fires.	2	2-VIII-A-3.1
071-316-2555	React to direct fire while mounted (TOW/ ITV).	2	2-VIII-A-6.1
071-326-0601	Use visual signals to control movement (mounted).	2	2-VIII-A-7.1
071-316-2652	Prepare and issue an oral operation order (TOW).	3	2-VIII-A-8.1
071-316-2601	Plan and control TOW section fires.	3	2-VIII-A-9.1
071-316-2801	Consolidate and reorganize a TOW section following enemy contact.	3	2-VIII-A-10.1
071-329-1019	Use a map overlay.	3	2-VIII-A-11.1
071-316-2651	Recommend employment of the TOW.	4	2-VIII-A-12.1

OFFENSE

071-316-2556	Determine methods of movement.	3	2-VIII-B-1.1

DEFENSE

071-316-2557	Select primary, alternate, and supplementary TOW weapon positions.	3	2-VIII-C-1.1

END OF COMMON TASKS

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DUTY POSITION TASKS
SKILL LEVEL 4

TOW PLATOON SERGEANT (MECHANIZED UNITS)

TASK NUMBERS		SL	PAGE
071-313-3451	Perform operator maintenance on a caliber .50 M2 HB machinegun and ammunition.	2	2-III-E-1.1
071-313-3452	Target/zero a caliber .50 machinegun.	2	2-III-E-2.1
071-313-3453	Load, reduce a stoppage , unload, and clear a caliber .50 machinegun.	2	2-III-E-3.1
071-313-3454	Engage targets with a caliber .50 machinegun.	2	2-III-E-4.1
071-313-3455	Set headspace and timing on a caliber .50 machinegun.	2	2-III-E-5.1
071-313-2314	Mount/dismount AN/TVS-2 sight on caliber .50 machinegun.	2	2-III-E-6.1
071-313-2315	Boresight AN/TVS-2 to caliber .50 machinegun.	2	2-III-E-7.1
113-587-2002	Prepare radio set AN/VRC-64 for operation.	1	2-II-D-10.1
071-326-3001	Select exact terrain route for a tracked vehicle and direct the driver over the route.	2	2-VIII-A-4.1
071-326-3002	React to indirect fire while mounted.	2	2-VIII-A-5.1

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TASK NUMBER: 092-503-3003

OPERATE AN IM-174 SERIES RADIACMETER

★ CONDITIONS:

Given the mission to monitor for radiation, a calibrated IM-174A/PD or IM-174/PD radiacmeter and batteries as follows:

IM-174A/PD	IM-174/PD	★ IM-174A/PD (single battery type)
two batteries BA-1391/U	two batteries BA-1318/U	
two batteries BA-1396/U	one battery BA-1288/U	one BA 30U
two batteries BA-1006/U		

(For test purposes, one set may have one or more dead batteries; the other set must have all live batteries.) Subsequently, given a mission to conduct area monitoring with the IM-174A/PD radiacmeter.

STANDARDS:

1. Install batteries, turn radiacmeter on, and determine if batteries are operational.

2. Correctly zero radiacmeter and determine correct reading.

PERFORMANCE MEASURES

1. Prepare IM-174A/PD Radiacmeter for use.

a. Unsnap the snap fasteners and remove the radiacmeter from the carrying case (figure 1).

★ b. Set the zero control (figure 2) to OFF. If radiacmeter is a single battery type, proceed to performance measure j.

c. Unscrew the captive screw on the bottom of the battery cover (figure 3).

d. Remove the battery cover (figure 3), which contains the battery board assembly.

e. Carefully lift the top battery contacts for the BA-1006/U (figure 3) and slide the two batteries BA-1006/U in their respective positions so that the + (plus) polarity marking on each battery is down (facing the battery board assembly); release the battery contacts.

f. Repeat the procedure given in e, above, and install the two BA-1391/U's.

★ **NOTE: Material marked in this manner is different or not included in the 11B and 11C series soldier's manuals.**

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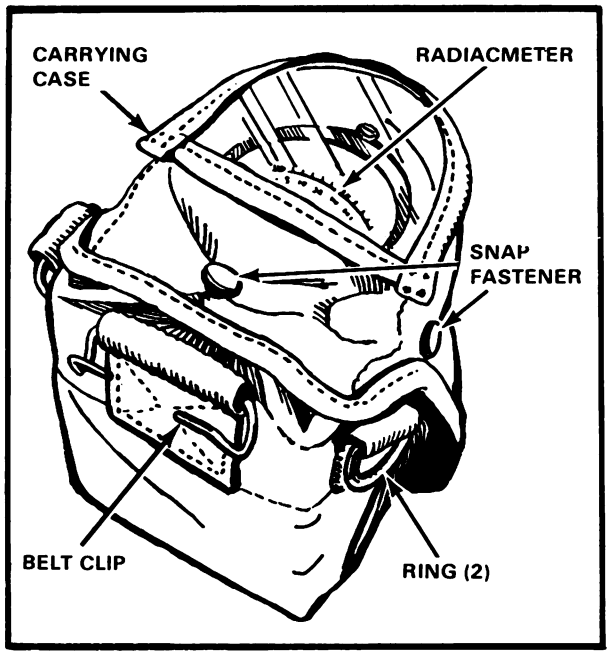

Figure 1. Radiacmeter in carrying case.

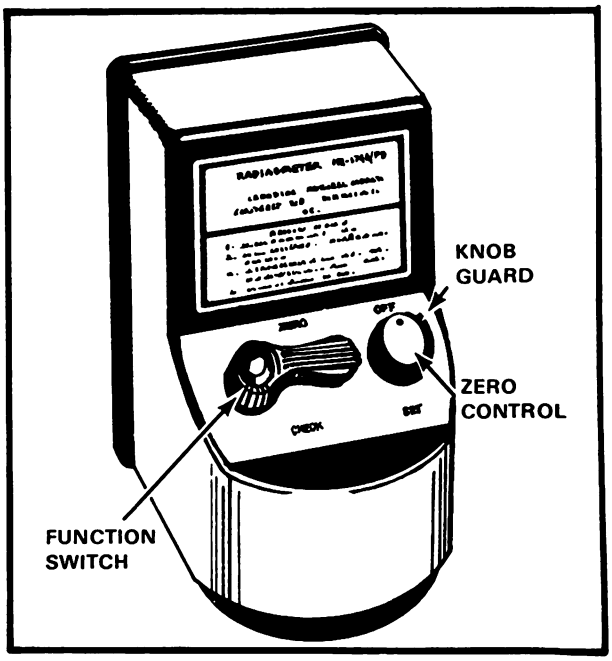

Figure 2. Radiacmeter controls.

g. Carefully insert the two BA-1396/U's in their contacts so that the + (plus) polarity marking on each battery coincides with the + polarity marking on the battery board assembly.

h. Carefully position the battery cover, which contains the battery board assembly, on the cover assembly so that the cable, attached to the battery board assembly (figure 4), is at the rear of the radiacmeter.

i. Secure the battery cover, which contains the battery board assembly, to the radiacmeter; tighten the captive screw.

★ **NOTES:**

1. If the radiacmeter contains an instrument light, proceed to paragraph m, below. If the radiacmenter does not conatin an instrument light, proceed to paragraph o.

2. If radiacmeter is a single battery type, follow the procedure in j through l below.

j. Unscrew the two captive screws holding the battery compartment cover (figure 5) and remove cover.

k. Insert a BA-30/U into the battery compartment, following the instructions on the label to insure that the battery polarity is correct.

★ l. Replace the battery compartment cover. Tighten the two captive screws firmly.

m. Remove the cover from the instrument light (figure 5) by lifting up on the tab (not shown) at the rounded (bottom) end of the cover.

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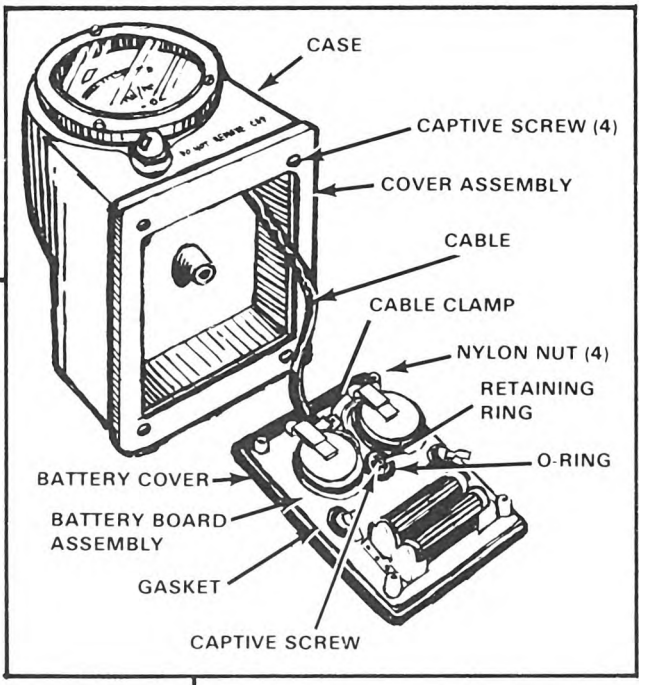
Figure 3. Battery cover removed from radiacmeter.



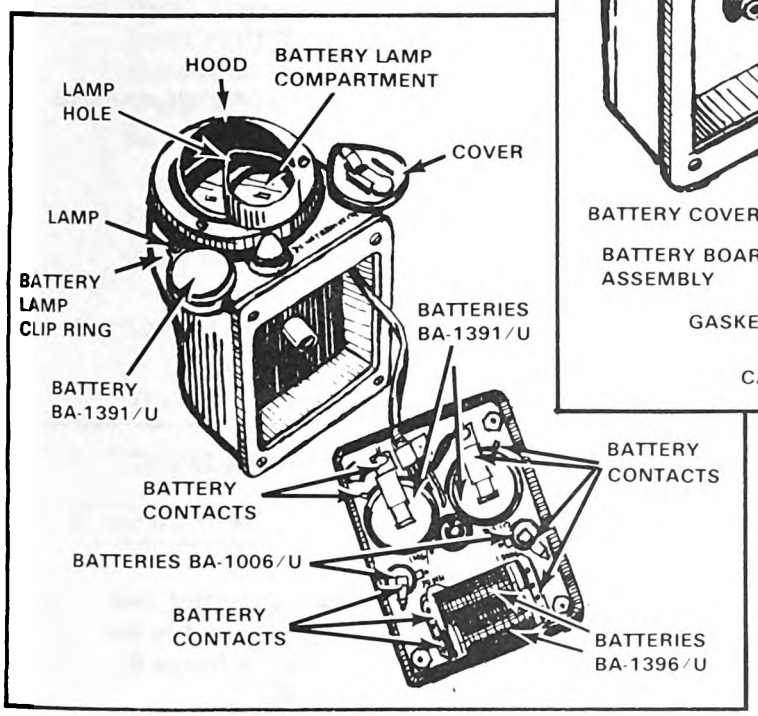


Figure 4. Installing batteries.

n. Remove the battery/clip ring containing a lamp from the battery/lamp compartment (figure 3).

o. Install a battery BA-1391/U in the battery/lamp clip ring so that the + polarity marking on the battery is facing the same direction as the glass portion (not shown) on the lamp.

p. Insert the battery/lamp clip ring containing the battery and the lamp in the battery/lamp compartment so that the glass portion of the lamp fits into the lamp hole, and the + polarity marking on the battery is down (facing the meter).

q. Replace the cover on the instrument light by fitting the pointed end of the battery/lamp compartment and carefully pressing down on the rounded (bottom) end of the cover (figure 5).

r. Replace the radiacmeter in its carrying case, and secure the snap fasteners.

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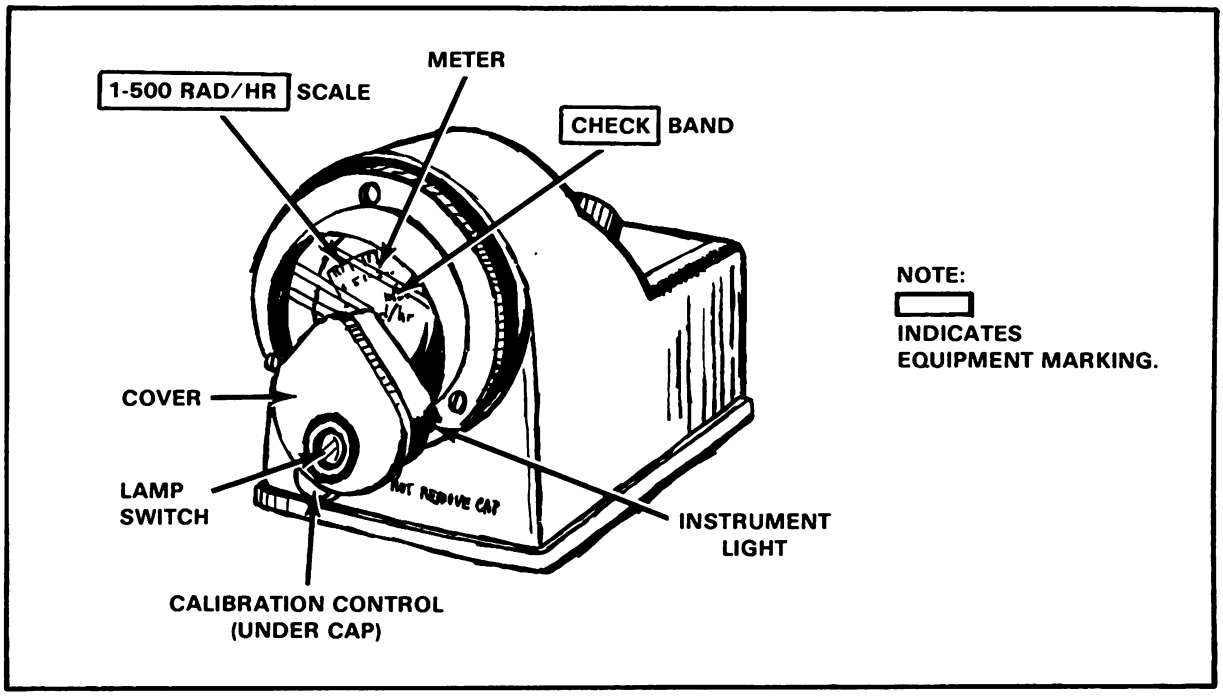

Figure 5. Radiacmeter (with instrument light), front and right side.

2. **Operate the IM-174A/PD.**

a. Unsnap the fasteners on the front and sides of the carrying case (figure 1). Push back the top part of the carrying case, and secure it to the carrying case snap fastener near the rear of the carrying case (figure 6).

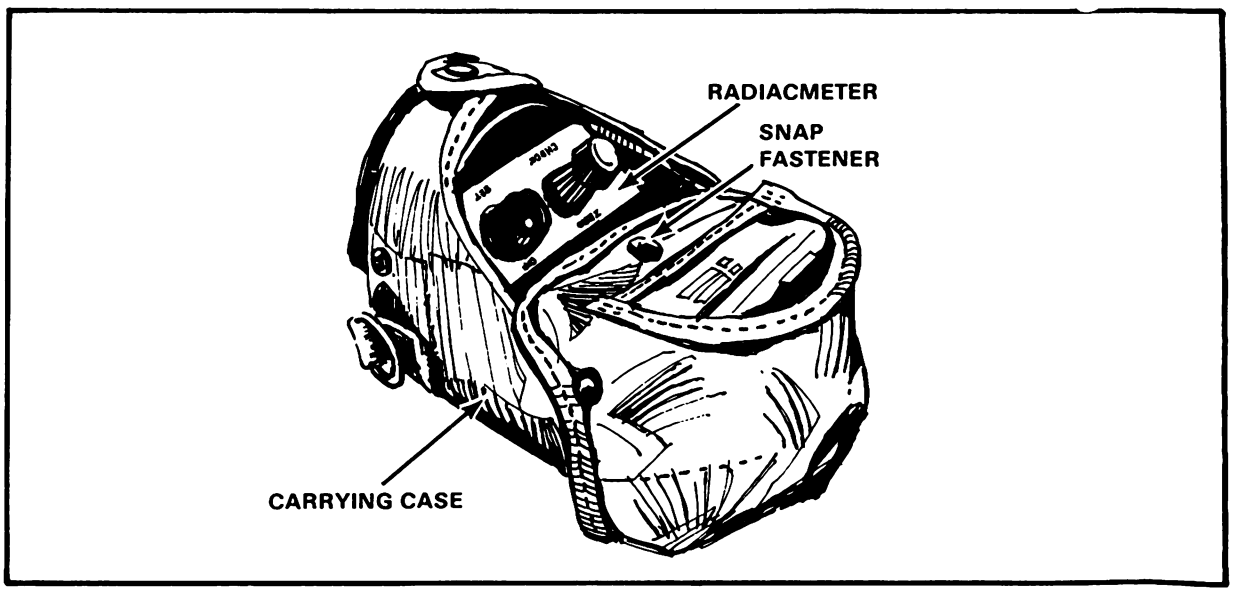

Figure 6. Radiacmeter (in carrying case) ready for operation.

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NOTES:

★ During operation of the radiacmeter (b through h below), the radiacmeter should be positioned so that the meter face is up and parallel to the ground, and one meter (waist-high) above the ground.

Some radiacmeters do not have an instrument light, but have a slightly radioactive dial that permits reading of the meter in low light. Others do not have a radioactive dial, but have an instrument light that also permits reading the meter in low light. To operate the instrument light (figure 5), press and hold the lamp switch; the lamp should light. When the lamp switch is released, the lamp should go out.

b. Turn on the radiacmeter by turning the zero control (figure 2) clockwise from OFF. Allow at least 2 minutes for the radiacmeter to warm up; if time permits, allow 20 minutes for complete warmup.

c. Press and hold the function switch to ZERO and adjust the zero control until the meter (figure 2) indicates 0 (zero).

d. Release the function switch (figure 2); the pointer of the meter (figure 7) should swing up-scale to between 5 and 10 rad/hr, then fall back to 0.

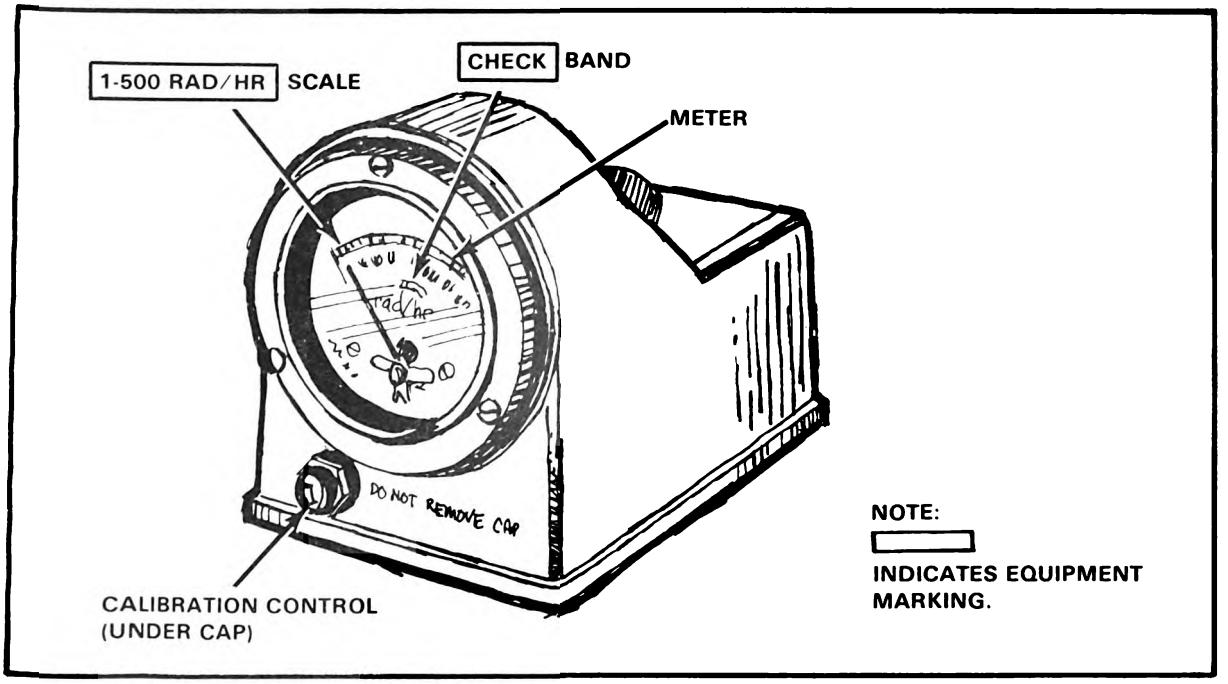

Figure 7. Radiacmeter (without instrument light), front and right side.

e. Press and hold the function switch to CHECK. The pointer of the meter should indicate within the CHECK band on the meter scale. (If the pointer of the meter indicates outside of the CHECK band, replace each battery with a new one.)

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f. Release the function switch. The pointer of the meter should return to 0.

g. Unsnap the carrying case snap fastener at the rear of the carrying case. Pull the top part of the carrying case over the top of the radiacmeter, and fasten the snap fasteners on the sides and front of the carrying case.

h. Measure the radiation dose rate by taking the reading indicated on the 1-500 rad/hr scale of the meter. Observe the radiation readings through the front clear face of the carrying case.

i. Report the reading to your supervisor.

PERFORMANCE MEASURES FOR IM-174/PD:

1. **Install batteries.**

a. Unsnap the snap fasteners and remove the radiacmeter from the carrying case.

b. Loosen the thumbscrew (turn it toward the left) on the battery box (figure 8) from the recess in the bottom cover plate of the radiacmeter. Do not place any excess strain on the cable.

c. Press down on the lock plate (figure 8), turn it to the left, and lift it off the battery box.

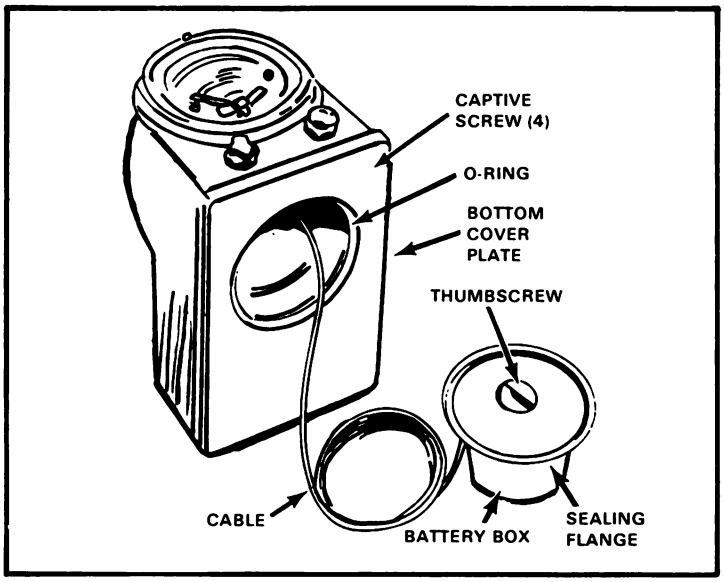

Figure 8. Radiacmeter, bottom view, battery box removed.

d. Lift the phenolic retaining plate (figure 9) from the battery box.

e. Examine the battery cavities, and clean them if necessary.

f. Install battery BA-1288/U in its cavity in the battery box so that the plus sign (+) faces the center (threaded shaft).

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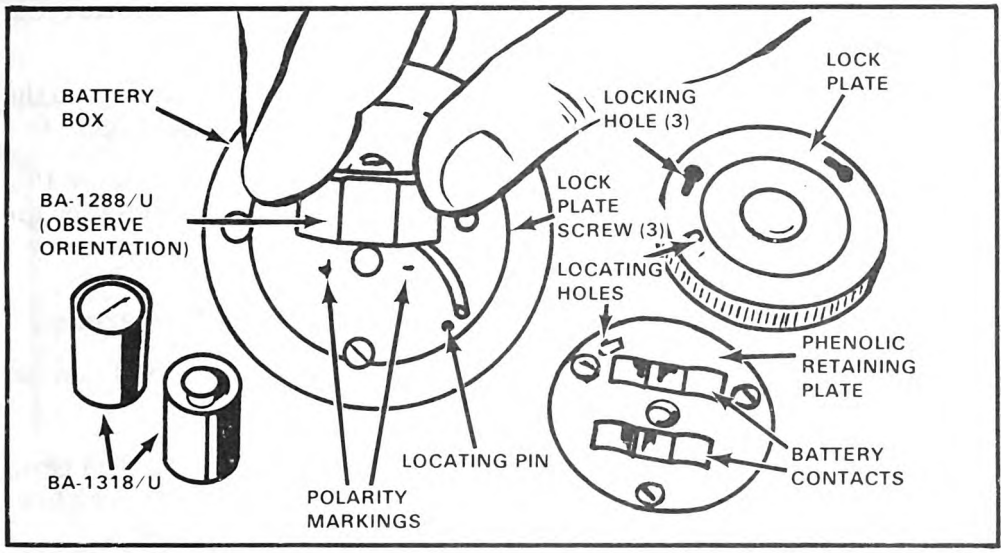

Figure 9. Installing batteries in battery box.

g. Install each battery BA-1318/U in its respective cavity in the battery box; observe the polarity markings on the bottom of the battery box and on each battery.

h. Replace the phenolic retaining plate on the battery box by orienting the plate with the box so that the locating pin on the box mates with the locating hole on the plate.

i. Replace the lock plate by orienting it with the battery box so that the locating hole and locking holes on the lock plate mate with the locating pin and the lock plate screws on the battery box. Press down on the lock plate, and turn it to the right until it is secure under the lock plate screws.

j. Wrap the cable (figure 8) around the battery box. Be sure that the cable is wrapped snugly and flush against the sealing flange (no more than one layer of cable) of the battery box.

CAUTION: Do not allow the wrapped cable to slip down into the smaller portion of the recess. The cable might be cut and thereby prevent the radiacmeter from operating when the thumbscrew is tightened.

k. Carefully replace the battery box in the recess of the bottom cover plate of the radiacmeter. Make sure that the cable is still in place, and then handtighten the thumbscrew. Do NOT overtighten the thumbscrew.

l. Replace the radiacmeter in the carrying case and secure the snap fasteners.

2. **Operate the IM-174/PD.**

a. Starting. The following procedures must be performed to start the radiacmeter after any shutdown.

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(1) Unsnap the snap fasteners on the front and sides of the carrying case (figure 1).

(2) Push back the top part of the carrying case, and secure it to the carrying case snap fasteners near the rear of the radiacmeter (figure 6).

(3) Turn on the radiacmeter by turning the SET control (figure 10b) clockwise (just past the click) from OFF. Allow at least 2 minutes for the radiacmeter to warm up.

NOTE: If time permits, allow 20 minutes for complete warmup.

(4) Hold the function switch at ZERO, and adjust the SET control until the pointer on the panel meter indicates 0.

(5) Release the function switch to the CHECK position. The panel meter pointer should give a sudden kick up-scale and then drop back to 0.

(6) Set the function switch to ELEC. CAL. The panel meter pointer shoucl indicate 500 rad/hr. If the pointer does not indicate 500 rad/hr, remove the cap from the CALIB. control (on the right hand side of the front panel) (figure 10b) and adjust the control until the panel meter pointer indicates 500 rad/hr. Replace the cap on the CALIB. control.

NOTE: This procedure provides an indication that the radiacmeter is probably calibrated. If a panel meter indication of 500 rad/hr cannot be obtained by adjusting the CALIB. control, change the batteries (IM-174/PD, 1b - 1j) and repeat the procedures given in (3) through (6), above. If a panel meter indication of 500 rad/hr still cannot be obtained by adjusting the CALIB. control, the radiacmeter is defective and should be turned in for maintenance.

(7) Hold the function switch (figure 10a) in the LINEARITY position. The panel meter pointer should fall within the red mark on the face of the meter.

NOTE: If the pointer indicates outside the red mark, change the batteries (para 1b - 1j) and repeat the procedures given in (3) through (7), above.

b. Operating.

(1) Set the function switch to READ. The radiation dose rate will be indicated on the 0- to 500-rad/hr scale of the panel meter.

CAUTION: Continuous operation over several hours or after extreme temperature changes may cause a small drift or change in the ZERO adjustment or in the ELEC. CAL. calibration. To correct this action, readjust the SET control (a(4), above) and the CALIB. control (a(6), above).

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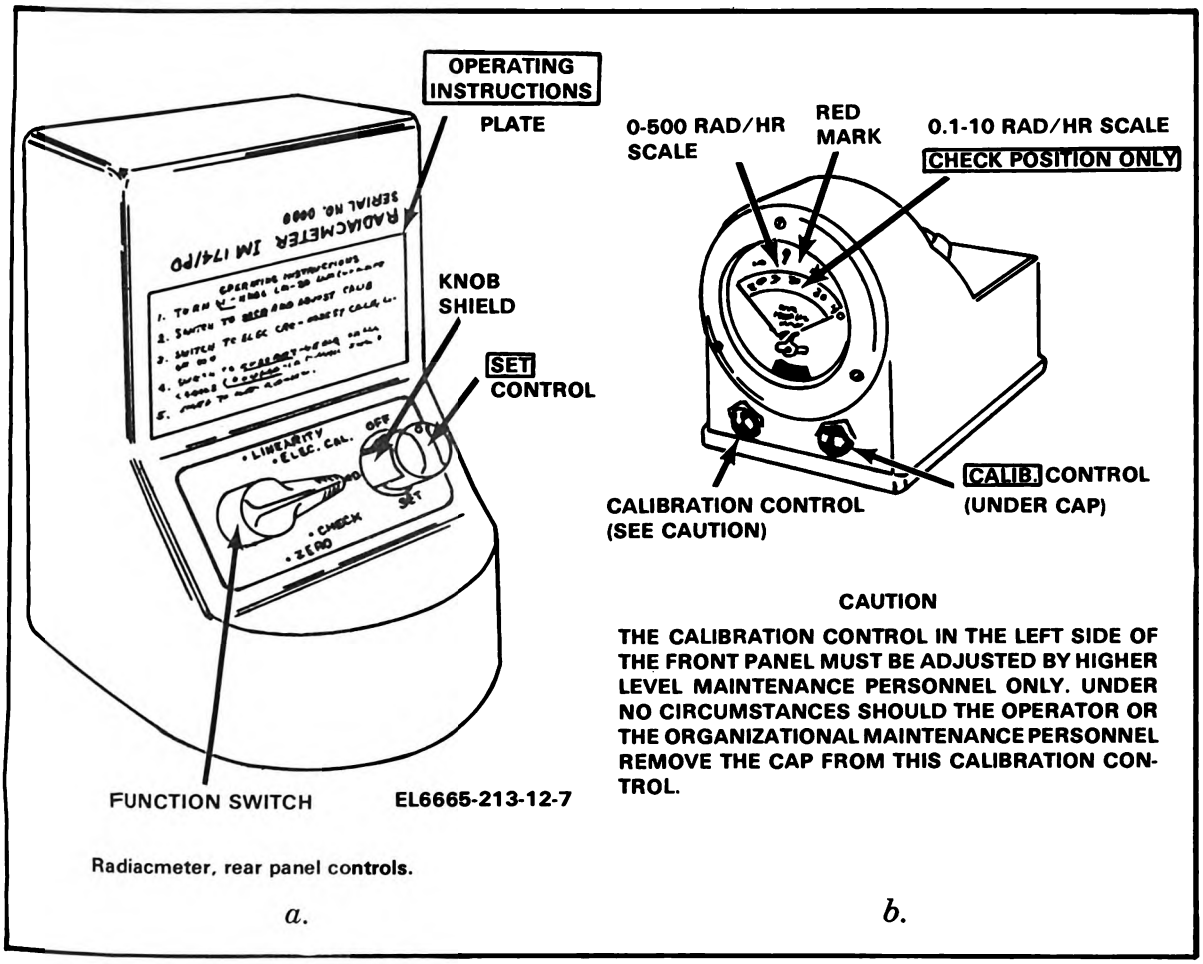
OPERATING INSTRUCTIONS PLATE
KNOB SHIELD
SET CONTROL
FUNCTION SWITCH
EL6665-213-12-7
0-500 RAD/HR SCALE
RED MARK
0.1-10 RAD/HR SCALE
CHECK POSITION ONLY
CALIB. CONTROL (UNDER CAP)
CALIBRATION CONTROL (SEE CAUTION)
CAUTION
THE CALIBRATION CONTROL IN THE LEFT SIDE OF THE FRONT PANEL MUST BE ADJUSTED BY HIGHER LEVEL MAINTENANCE PERSONNEL ONLY. UNDER NO CIRCUMSTANCES SHOULD THE OPERATOR OR THE ORGANIZATIONAL MAINTENANCE PERSONNEL REMOVE THE CAP FROM THIS CALIBRATION CONTROL.

Radiacmeter, rear panel controls.

a. *b.*

Figure 10a. and b.

(2) If it is suspected that the radiation dose rate is less than 10 rad/hr and only a rough survey is desired, proceed as follows:

(a) Readjust and calibrate the radiacmeter (a(4) through (7), above).

(b) Set the function switch to CHECK.

(c) Read the radiation dose rate given on the 0.1- to 10-rad/hr scale of the panel meter (figure 10b).

NOTE: If a more accurate indication is required, return the function switch to the READ position ((1), above).

(3) When the radiation dose rate measurements have been completed, shut down the radiacmeter (c, below).

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c. Stopping.

(1) Turn the SET control (figure 10a) to OFF.

(2) Unsnap the carrying case snap fasteners at the rear of the radiacmeter, and fasten it to the snap fasteners on the front and sides of the carrying case (figure 1).

NOTE: If the radiacmeter is not to be kept in use, remove the batteries (para 1b - 1j).

REFERENCES:

TM 11-6665-232-12, Operator and Organizational Maintenance Manual, Radiacmeter IM-174A/PD, C1-5, Aug 67 (chap 2, pages 2-2, pages 2-4, 2-5; chap 3, pages 3-2 to 3-7)
TM 11-6665-213-12, Operator and Organizational Maintenance Manual, Radiacmeter IM-174/PD, C1-2, Jul 69 (chap 2, pages 2-4 to 2-8; chap 3, pages 3-6 to 3-10)

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TASK NUMBER: 031-503-3009

OPERATE THE AN/PDR-27 RADIAC SET

CONDITIONS:

Given an operable AN/PDR-27 with all necessary components, and the requirement to monitor personnel, supplies, or equipment for beta/gamma radiation, or the requirement to determine completeness of radiological decontamination.

STANDARDS:

Correctly determine the presence or absence of beta/gamma radiation. For gamma, correctly determine the dose rate to ± 20% of actual source strength.

PERFORMANCE MEASURES:

1. Prepare AN/PDR-27 for Use.

a. Remove radiacmeter harness and headset from carrying case.

b. Attach clips on harness through carrying holes in each end of radiacmeter panel.

c. Place one arm through opening, slip harness over head, and arrange assembly so radiacmeter is on left side of body and strap is over right shoulder. Adjust shoulder strap for comfortable fit.

d. If sound is desired, put on headset and connect plug to jack on radiacmeter panel.

e. Turn range switch to BAT COND and observe meter indication. If pointer rests at right of center line in area marked "battery" on movable dial, batteries are in operating condition. If pointer is to left of center line, batteries are exhausted and must be placed IAW TM 11-6665-230-15, sec 2, para 2-4 for the AN/PDR-27R; for the AN/PDR-27J, L, or Q, see TM 11-6665-209-15, sec 2, para 2-2.

f. Turn range switch to 500.

2. Monitor Personnel.

a. Have personnel being monitored stand straight with feet 1 foot (30 cm) apart, arms extended sideward with palms up and fingers straight.

b. Remove the probe and hold the probe window about 1 inch from the individual's hand.

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c. If no radiation is detected or the meter reading is less than five scale divisions, turn the range switch to the next lower scale. If no radiation is detected on the 0.5 mrad scale, continue monitoring using that scale.

d. Pass the probe over both hands and forearms to the elbows with palms up; then repeat with palms turned down.

e. Pass the probe over the entire front of the body, starting at the top of the head; check hair, forehead, nose, lips, neckline, torso, knees, and ankles.

f. Repeat this process from head to ankles over the back of the individual.

g. Monitor the sole of each foot.

h If no radiation is detected, inform the individual that he is not contaminated. If radiation is detected, inform your supervisor and have the individual await further instructions.

NOTE: If this completes your mission, go to performance measure 5, Stop the Equipment.

3. Monitor Equipment, Supplies, and Water.

a. Remove the probe and hold the probe window about 1 inch from the item being monitored.

b. Hold the probe perpendicular to the surface and move it along the surface with a slow, steady motion.

c. If no radiation is detected or the meter reading is less than five scale divisions, turn the range switch to the next lower scale. If no radiation is detected on the 0.5 mrad scale, continue monitoring using that scale.

d. Report the results to your supervisor.

NOTE: If this completes your mission, go to performance measure 5, Stop the Equipment.

4. Determine If Radiation Is Beta or Gamma or Both.

a. Remove the probe.

b. Open the beta window on the end of the probe. (Do not touch the material inside the probe. It is only 0.0005-inch thick and easily damaged.)

c. Hold the end of the probe about 1 inch from the item being monitored and note the reading.

d. Close the beta window.

e. Hold the end of the probe about 1 inch from the item being monitored and note the reading.

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f. If you had a reading with the window open, but did not have a reading with the window closed, then beta alone is present. If you had a higher reading with the window open than you did with the window closed, then both beta and gamma are present.

5. Stop the Equipment.

a. Turn the range selector switch to OFF.

b. Place the probe into its well.

c. Remove the harness and headset from the radiacmeter.

d. Stow all items in the carrying case.

REFERENCES:

FM 3-12, Operational Aspects of Radiological Defense, Aug 68, w/C1 and 2, (chap 2, para IV, para 3-7 thru 3-9)
TM 11-6665-209-15, Radiac Set, AN/PDR-27J, L, and Q, Sep 66, w/C3, 6, and 7, (sec 3, para 3-3 thru 3-7)
TM 11-6665-230-15, Radiac Set, AN/PDR-27R, Jun 67, w/C1 and 2 (sec 3, para 3-1 thru 3-6)

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TASK NUMBER: 092-503-3006

DECONTAMINATE UNIT EQUIPMENT

★ CONDITIONS:

Given unit equipment contaminated with an identified chemical or radiological hazard (simulated), the requirement to decontaminate, a work crew, chemical-agent detector kit with operator, radiacmeter with operator, DS2, STB, scrubbing/cleaning equipment, and an acceptable level of decontamination established by the commander.

STANDARDS:

1. Select and use the appropriate decontaminant IAW performance measures below.

★ 2. Insure all personnel performing decontamination are wearing all protective equipment available.

PERFORMANCE MEASURES:

1. A decontaminant is anything used to reduce the hazard caused by chemical, biological, or radiological contamination so the mission can be accomplished.

2. Chemical decontaminants include:

a. STB decontaminating agent (bleach). STB neutralizes liquid chemical agents by chemical action. Pure STB in direct contact with liquid blister agents reacts violently and can cause a fire. This is why STB is used in a dry mix (with dirt) or as a wet mix (with water). STB also corrodes metals. Wet mix is effective against biological agents.

WARNING: DO NOT USE STB FOR PERSONNEL DECONTAMINATION. DO NOT MIX WITH DS2 BECAUSE A FIRE MAY RESULT. Wear protective mask and gloves when handling STB.

b. DS2 decontaminating agent. DS2 neutralizes all known chemical agents and most biological agents. It reacts with G-agents, V-agents, and blister agents to reduce their hazards within 30 minutes after application. Ready-to-use solution is available in 1 1/3-quart cans and 5-gallon drums. DS2 can be applied easily with the 1 1/3-quart M11 decontaminating

★ **NOTE: Material marked in this manner is different or not included in the 11B and 11C series Soldier's Manuals.**

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apparatus, a broom, or a swab. One application of DS2 should be applied to the contaminated surface and, after 30 minutes, flushed with water.

WARNING: DO NOT USE DS2 FOR PERSONNEL DECONTAMINATION. DO NOT MIX WITH STB BECAUSE A FIRE MAY RESULT. DS2 IS FLAMMABLE. Avoid inhalation of vapors or contact of solution with the skin or eyes. Wear protective mask when using DS2.

c. Water or steam. It removes dirt and grease containing chemical agents or radioactive material. Hot soapy water destroys G-agents and physically removes other chemical and radiological contamination. Water or steam is applied under high pressure; action of hot water is speeded by using soap or other detergent.

WARNING: Water and condensed steam used to remove contamination should be drained into a sump and properly marked. If necessary to drain into a stream, friendly units downstream must be notified.

d. Hot air. It evaporates liquid chemical contaminants. Hot air is used in special situations, such as decontamination of delicate instruments contaminated with liquid agents or decontamination of aircraft cabins by engine heaters.

CAUTION: Temperature and air pressures used should be safe for particular equipment involved. Blown air will itself be contaminated by the chemicals it removes.

e. Weathering. Exposure of chemically contaminated equipment to the sun, air, and rain will decontaminate the equipment if sufficient time is allowed.

3. Chemical decontamination of unit equipment. Unit equipment used by individuals is decontaminated by individuals, as soon after contamination as the situation permits, as described below.

a. Vehicles. Vehicles that are lightly contaminated (pinhead-size spots at least one-fourth inch apart), as determined by chemical agent detector paper, may be decontaminated by airing. Each tactical vehicle is authorized one M11 portable decontaminating apparatus that contains 1 1/3 quarts of decontaminating agent DS2. It is used to decontaminate parts of the vehicle that must be touched during vehicle operation, such as controls.

(1) If the driver of the vehicle realizes that the vehicle is contaminated, he and other occupants mask and continue their mission until the situation permits decontamination outside the contaminated area.

(2) The vehicle is decontaminated with DS2, soapy water, solvents, or slurry. The M11 decontaminating apparatus is not intended for decontamination of the entire vehicle; one filling of DS2 is sufficient for emergency decontamination of the operator controls. The apparatus is used

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by tank crews and armored personnel carrier drivers to decontaminate those parts of the vehicle that will be touched by personnel during the mission; for example, areas touched when entering or leaving the vehicle. If sufficient DS2 is not available, gasoline, mud, rags, or any other expedient may be used. (These expedients do not neutralize the hazard. They just remove it.) Contaminated wood surfaces and tires are decontaminated with slurry.

b. Crew-served weapons. Crew-served weapons are decontaminated by using the methods described in a above. If necessary, the bore can be decontaminated by using cleaning solvent or hot soapy water. Ammunition is decontaminated with DS2 solution, wiped with gasoline-soaked rags, and then dried. If DS2 is not available, ammunition may be washed with cool soapy water, rinsed, and then dried thoroughly. Ammunition corroded from contamination is disposed of, particularly if the brass parts cannot be cleaned. **Dry STB (bleach) must not be used on ammunition contaminated with mustard-type blister agents because when mixed they may ignite and start a fire.** After decontamination, weapons are disassembled, washed, rinsed, dried, and oiled to prevent corrosion.

c. Optical instruments. Optical instruments are decontaminated by blotting with rags, wiping with an organic solvent (lens-cleaning solvent only is used for the lens), and then allowing them to air. If available, hot air is used to decontaminate most optical instruments.

d. Communication and radar equipment. Communication equipment is decontaminated by using hot air, if available. The next best method is by airing or weathering. The metal parts of field telephones and radios are decontaminated with DS2 and then wiped with rags. Heat-producing equipment such as electrical devices that contain tubes normally is decontaminated by the heat given off during operation.

4. Radiological decontamination of unit equipment. The three methods of radiological decontamination are aging, sealing, and removing. The method most desirable for decontamination of vehicles and equipment is aging. This method can be used only when there is not an immediate need for the vehicle and the contaminant is not too long-lived. Brush loose, dry contamination from the vehicle before starting the aging process. If the vehicle is required for immediate use, brush loose contamination from the surface and clean the vehicle by washing or scrubbing with steam or water and detergents. More extreme procedures include the removal of the protective finish with organic solvents and solutions or strong caustic solutions. These solvents and solutions should not be allowed to come in contact with rubber articles. Special attention should be paid to areas near the driver and to the controls.

REFERENCES

FM 21-40, NBC (Nuclear, Biological and Chemical) Defense, Oct 77, (chap 5, pages 5-26 thru 5-32)
TM 3-220, Chemical, Biological, and Radiological (CBR) Decontamination, C1, 2, Nov 67 (chap 1, page 5-8, para 9; chap 2, page 23-31, para 24; app B)

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TASK NUMBER: 092-503-3005

PREPARE AND SUBMIT NBC 1 REPORT

CONDITIONS:

In a simulated NBC environment, given a simulated nuclear or chemical agent attack, an NBC 1 reporting format, compass, watch, FM tactial radio, and a standard 1:50,000 scale military map of the area.

STANDARDS:

Within 5 minutes, submit an NBC 1 report to the next higher headquarters, reporting as a minimum lines D, H, and either B and C or F on the report form.

PERFORMANCE MEASURES:

1. United States forces use standardized NBC attack warning and reporting procedures. The NBC report formats provide a rapid means for disseminating information on opposing force use of NBC weapons. The first of these reports, NBC 1, is used by the observing unit to give initial and subsequent data of an enemy NBC attack.

2. NBC 1 reports (figure 1) follow the same format as the SHELLREPS, MORTREPS, and BOMBREPS dealing with conventional attacks.

a. The item "Type of Report", and letter items D, H, and either B and C or F must always be reported. Other items are optional.

b. Users of NBC 1 reports are not limited only to the use of letter items shown in figure 1; other letter items from FM 21-40, app E, sec II, para E-6, may be added at the user's discretion.

c. Initial NBC 1 reports are submitted with a FLASH precedence. Subsequent NBC 1 reports are submitted with an IMMEDIATE precedence.

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Letter	*Meaning*	*Example*	
	Precedence*		
	Date/Time (local or ZULU, state which)		
	Security Classification		
	From		
	To		
	Type of Report	NBC 1 (Nuclear)	NBC 1 (Chemical)
A.	Strike serial number, if known		
B.	Position of observer (UTM or place)	B. LB 196400	B. MARVILLE
C.	Direction measured clockwise from grid or magnetic north (state which) of the attack from observer (degrees or mils, state which)	C. Grid 060 degrees	
D.	Date/time of detonation (local or ZULU, state which)	D. 201405 (local)	D. 201405 (local)
E.	Illumination time (seconds)		E. 201412 (local)
F.	Location of attack (UTM or place) (actual or estimated, state which)		F. LB 205305 est
G.	Means of delivery, if known		G. Artillery
H.	Type of burst—air, surface, or unknown (state which)—including height, if known	H. Surface	H. Airburst, nerve
J.	Falsh-to-bang time (seconds)	J. 60	
K.	Crater present or absent and diameter, if known (meters)		
L.	Nuclear burst angular cloud width measured at 5 minutes after the detonation (degrees or mils, state which) (Do not report if data are obtained more than 5 minutes after the detonation.)	L. 280 mils	
M.	Stabilized cloud-top angle and/or cloud-bottom angle (state which) or cloud-top height and/or cloud-bottom height (state which) measured at H + 10 minutes (mils, degrees, meters, or feet—state which)		

*As appropriate or as per unit SOP.

Figure 1. Format NBC 1 reports.

3. In nuclear burst reporting, the most probable sequence of events and the recommended procedures for the observer gathering nuclear burst data are outlined below.

a. At the instant of the "blue-white flash," hit the ground, start the stopwatch (if available), and start counting slowly - 1000 and one, 1000 and two, 1000 and three, and so on until the arrival of the shock wave or blast/bang. Do not look at the fireball. Stay under cover if possible until the shock wave or blast/bang has passed and debris has stopped falling. Make a mental note of the count on which the shock arrived (for example, 1000 and four), stop the stopwatch (if used), and continue counting to 1000 and five.

b. After the shock wave (blast/bang) has passed or the count of 1000 and five is reached (whichever is later), uncover the eyes, read the local time (wristwatch reading) to the nearest second, and then observe the developing cloud. If the bang is not heard in 5 minutes (that is, a count of 300), continue with other measurements.

c. Record the count on which the shock wave arrived at letter item J (for example, 4 seconds), or record the stopwatch reading, if used. Record the local time reading made (b above) to the nearest minute as letter item D. If throwout (earth particles that have fallen back and built up on the edge of the crater) can be observed or if a thick, dense stem has developed, report "SURFACE" as letter item H (see figure 2). If the stem is not connected to the mushroom part of the cloud, report "AIR." If in doubt or if determination

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definitely cannot be made, report "UNKNOWN" as letter item H. If throwout was observed, also enter YES as letter item K; otherwise, leave blank.

d. If visibility permits observation of ground zero (GZ), determine by map inspection the coordinates of GZ, and record them with the name of the place as letter item F.

e. If GZ cannot be observed, measure the azimuth from observer location to the center of the stem or mushroom cloud. Enter this azimuth in mils or degrees (state which) as letter item C.

f. Complete letter item B and submit the initial nuclear burst report (NBC 1).

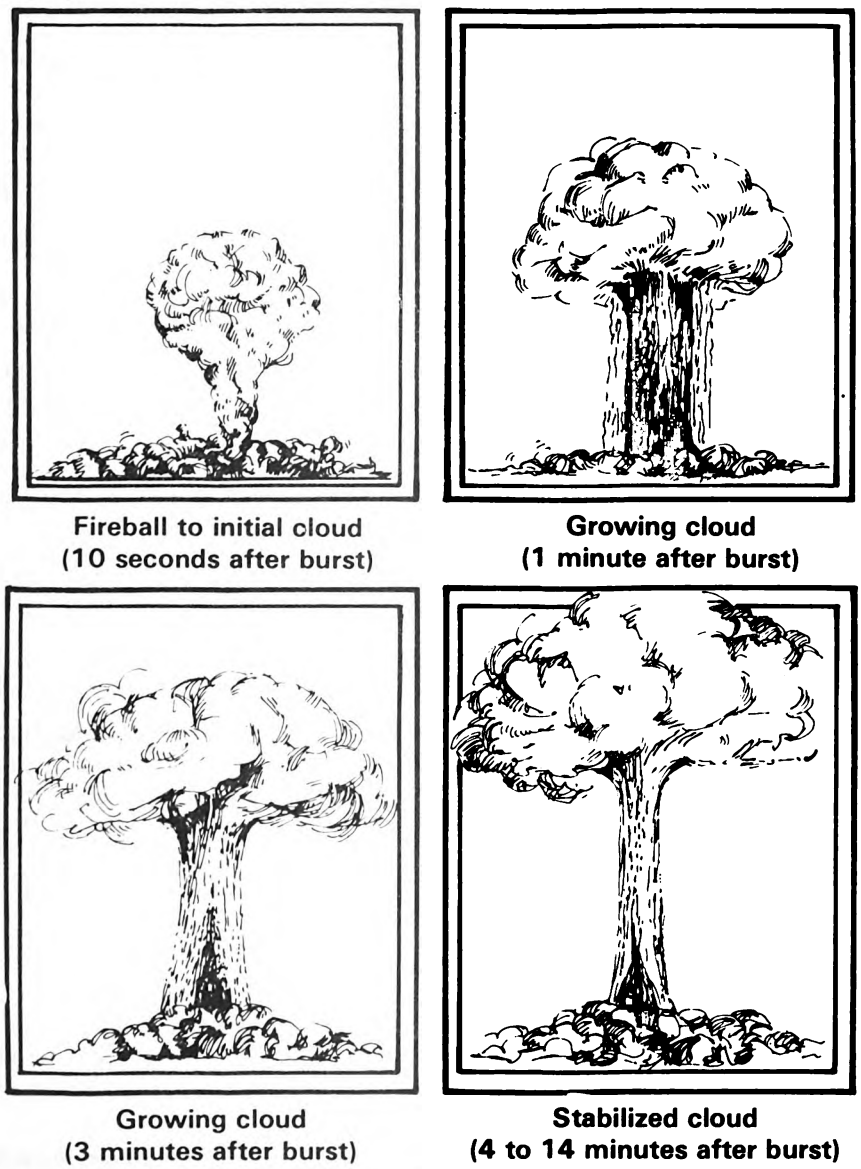

Figure 2. Cloud development of a typical surface nuclear burst.

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4. Example nuclear burst reports (NBC 1):

a. Initial Report. The initial nuclear burst report is transmitted with a FLASH precedence. This example illustrates voice transmission. The observer's location is encoded for security reasons.

Example Initial Nuclear Burst Report:

FLASH 09010 ROMEO
UNCLASSIFIED
FROM REDDOG TO AMIGO
NBC 1 NUCLEAR
BRAVO I SET DELTA HOTEL BRAVO
CHARLIE GRID 182 MILS
DELTA 090907 ROMEO
HOTEL SURFACE
JULIET 60
END OF MESSAGE

b. Subsequent Report. The subsequent nuclear burst report normally is transmitted with an IMMEDIATE precedence.

(1) This example illustrates the subsequent report by voice transmission with data for letter item L obtained at 5 minutes after the burst:

IMMEDIATE 090913 ROMEO
UNCLASSIFIED
FROM REDDOG TO AMIGO
NBC 1 NUCLEAR
BRAVO I SET DELTA HOTEL BRAVO
CHARLIE GRID 182 MILS
DELTA 090907 ROMEO
HOTEL SURFACE
LIMA 280 MILS
END OF MESSAGE

(2) This example illustrates the subsequent report with letter item B in the clear and data for letter item M obtained at 10 minutes after the burst:

IMMEDIATE 090918 ROMEO
UNCLASSIFIED
FROM REDDOG TO AMIGO
NBC 1 NUCLEAR
BRAVO ECHO-TANGO-054066
CHARLIE GRID 182 MILS
DELTA 090907 ROMEO
HOTEL SURFACE
MIKE 550 MILS TOP
END OF MESSAGE

5. A method of gathering data for the report of a chemical attack is outlined below.

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a. Immediately mask, take cover, and check your watch. Record the local time reading, to the nearest minute, as letter item D.

b. When the attack ends, again note the time and record as letter item E.

c. Use detection equipment to identify the type of agent employed and record as letter item H.

d. Your position is reported as letter item B, the location of the attack is letter item F, and, if you could identify the means of attack, that becomes letter item G.

6. Examples of initial and subsequent NBC 1 chemical reports:

Company A, 2d Battalion, 1st Brigade, is under artillery chemical attack. The callsign of the 2d Battalion is REDDOG and of the 1st Brigade, VICTOR. Examples of initial and subsequent NBC 1 chemical reports from the company through the battalion are given below. The actual message format follows the unit SOP.

a. Actions by Company A. First, the company alerts its subordinate units on the company net with a FLASH precedence brevity code, "GAS."

(1) Initial NBC 1 chemical report. The company alerts the 2d Battalion (S3) with an initial NBC 1 report, as follows:

FLASH
201408 HOTEL
FROM ALPHA
TO REDDOG
NBC 1 CHEMICAL

BRAVO MARVILLE
DELTA 201405 HOTEL
FOXTROT LIMA BRAVO 205305 ESTIMATED
GOLF ARTILLERY
HOTEL AIR

The actual message might be transmitted as follows:

FLASH FLASH, REDDOG REDDOG, NBC 1 CHEMICAL, FROM ALPHA, 201408 HOTEL, BRAVO MARVILLE, DELTA 201405 HOTEL, FOXTROT LIMA BRAVO 205305 ESTIMATED, GOLF ARTILLERY, HOTEL AIR, END OF MESSAGE.

(2) Subsequent NBC 1 chemical reports.

(a) When the chemical agent used in the chemical attack has been identified, the company submits a subsequent NBC 1 report, using the strike serial number assigned by the CBRE to the initial NBC 1 report and giving followup data, as follows:

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IMMEDIATE
201418 HOTEL
FROM ALPHA
TO REDDOG
NBC 1 CHEMICAL
ALPHA 02
ECHO 201412 HOTEL
HOTEL NERVE

(b) If a persistent chemical agent was used in the attack and the contaminated area is located, the company submits another subsequent NBC 1 report, giving followup data and using the same strike serial number, as follows:

IMMEDIATE
201438 HOTEL
FROM ALPHA
TO REDDOG
NBC 1 CHEMICAL
ALPHA 02
X-RAY LIMA BRAVO 208303, 208308, 203303, 203308

REFERENCES:

FM 21-40, NBC (Nuclear, Biological and Chemical) Defense, Oct 77 (chap 6, pages 6-8 thru 6-17)

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TASK NUMBER: 092-503-3007

PREPARE SUPPLIES AND EQUIPMENT FOR NBC ATTACK

CONDITIONS:

Your unit is operating in a field location and opposing forces have the capability of delivering NBC weapons into your area. The commander has directed you to prepare for an enemy attack.

STANDARDS:

1. Supplies and equipment are covered to protect against contamination.

2. Supplies and equipment are secured to protect against nuclear blast effects.

PERFORMANCE MEASURES:

1. Protect supplies and equipment from chemical or biological contamination or fallout.

a. Cover important items of equipment. Plastic sheets serve as excellent covers because they are nonporous. If plastic material is not available, tarpaulins or other suitable material may be used. If no other cover is available, dense foliage will provide some protection.

b. Cover ammunition or keep in its containers as long as possible.

c. Cover weapons or disperse under foliage when possible.

d. Keep instruments, such as those used for fire control, in their containers when not being used.

e. Locate vans to take advantage of any available natural shielding. If possible, vans are located so that the air conditioners are opposite the prevailing wind direction. Personnel responsible for the operation of the vans should make every effort possible to reduce leakage in vans and components such as the air conditioners.

f. Locate vehicles in woods or under bushes, or disperse and cover, if possible.

g. Cover communication equipment not housed in shelters. Protect the headsets on radios and the mouthpieces on telephones from contamination by covering with plastic.

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h. Provide overhead cover for field latrines.

i. Keep food packages sealed until ready for consumption.

j. Store unpackaged food in field iceboxes and refrigerators (sealing gaskets must be serviceable).

k. Keep water in sealed containers.

2. Protect supplies and equipment from nuclear attack.

a. Disperse supplies and equipment, particularly explosives and flammables.

b. Clear area of loose debris.

c. Secure loose items of equipment to prevent them from becoming missiles.

d. Store supplies and equipment below ground level (dig in when possible).

e. Considering mission requirements, turn off electronic equipment, remove power cables and antennas, and locate the equipment inside bunkers and armored vehicles to protect against EMP.

REFERENCES:

FM 3-12, Operational Aspects of Radiological Defense, C1 & 2, Aug 68, (chap 3, sec IV, page 3-7 thru 3-9)
FM 21-40, NBC (Nuclear, Biological and Chemical) Defense, Oct 77 (chap 3)

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TASK NUMBER: 092-503-3002

INITIATE UNMASKING PROCEDURES

★ CONDITIONS:

Given the absence of command guidance, enemy has employed chemical agents (simulated, training only). Personnel are masked (for a minimum of 6 hours) and chemical agent detector is or is not available in a field environment.

★ STANDARDS:

1. Determine the absence of chemical agents when a chemical agent detector is available and have personnel unmask safely.

2. Determine the absence of chemical agents when no chemical agent detector is available and have personnel unmask safely.

PERFORMANCE MEASURES:

1. **Unmasking when chemical agents are employed.** Individuals do not unmask until authorized by their immediate commander or, in the absence of command guidance, the procedures described in 2 or 3 below are followed. The procedures are followed as a safety measure on the assumption that highly lethal agents may have been employed by the enemy.

2. **Procedure when a chemical agent detector is available.** The unit chemical agent detector kit is used to test for the presence of chemical agents. After determining the absence of chemical agents:

a. Have two or three individuals unmask for 5 minutes and then remask for 10 minutes.

b. Check individuals for chemical agent symptoms.

c. After the individuals have been examined in a shady area for chemical agent symptoms and no symptoms appear, others in the group may then safely unmask.

★ **NOTE: Material marked in this manner is different or not included in the 11B and 11C series Soldier's Manuals.**

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NOTE: Bright sunlight will cause contraction of the pupils of the eyes, which could erroneously be interpreted as a nerve agent symptom. However, limited exposure to a low concentration of nerve agent, not detectable by the chemical agent detector kit, will cause no ill effects other than a runny nose, tightness of the chest, and sometimes pinpointing of the pupils of the eyes. These effects are usually relieved by one injection of atropine/antidote.

3. **Procedure when no chemical agent detector is available.**

NOTE: This is an emergency field expedient when no chemical agent detector kit can be obtained.

a. Have two or three individuals perform the following:

(1) Take a deep breath, hold it, break the seal of the mask, and keep eyes wide open for about 15 seconds.

(2) Reestablish the mask seal and wait for about 10 minutes.

(3) If no symptoms develop after 10 minutes, the same individuals again break the mask seal, take three or four breaths, and then reseal the masks.

(4) After 10 minutes, if no symptoms have developed, these same individuals unmask for 5 minutes and then remask.

b. After 10 minutes, if no symptoms appear, others in the group may then safely remove their masks. However, all should remain alert for the appearance of chemical agent symptoms.

4. **Unmasking when irritant agents are employed.** When it is determined that only irritant agents are present, individuals unmask singly when the agent cloud has dispersed in their particular area. Each soldier breaks the seal of his mask around the face and takes several breaths to make sure that the area is clear before removing his mask.

REFERENCES:

FM 21-40, Chemical, Biological, Radiological, and Nuclear Defense, C1, May 71 (chap 4, page 4-11 thru 4-12, para 4-12)

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TASK NUMBER: 092-503-1109

CROSS A CONTAMINATED AREA

CONDITIONS:

In a simulated or actual NBC environment, given that you and your squad are wearing the standard chemical protective clothing, protective mask radiac equipment (if available), and a requirement to cross a contaminated area.

STANDARDS:

Take all actions and precautions before, during, and after crossing the contaminated area IAW the performance measures below.

PERFORMANCE MEASURES:

NOTE: The commander will normally determine when a contaminated area must be crossed. If the mission allows, a contaminated area should be bypassed. All protective measures should be observed, particularly when passing close to such an area.

1. When crossing a contaminated area is necessary, it is always best to determine the nature and extent of the contamination, if possible. (The unit has trained survey/monitoring personnel for this purpose.) If this is not possible, then measures must be taken to guard against all known possible NBC hazards.

★2. Before crossing, you and your squad must:

a. Mask.

b. Close all openings, button and fasten all protective clothings, and cover up, if possible.

c. Plan to use the shortest and least hazardous route (if possible), e.g., travel high ground.

d. Fasten M8 detector paper on equipment to monitor for each chemical contamination.

e. To cross a nuclear contaminated area:

(1) Use the IM-174 radiacmeter (if available) to monitor for radiation.

(2) Report the initial reading on the IM-174 to your supervisor.

★**NOTE: Material marked in this manner is different or not included in the 11B and 11C series Soldier's Manuals.**

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(3) Sandbag the floor of vehicles, if used.

(4) Close all doors, windows, and hatches on vehicles.

3. During crossing:

a. Cross as fast as possible, using vehicles, if availab.e

b. Avoid contact with surfaces of building, debris, and foliage.

c. Avoid all low areas such as gullies, trenches, cellars, and puddles where agent may collect.

d. Avoid stirring up dust and dirt.

e. Check detector paper (chemical contamination) and radiac instruments (nuclear contamination) frequently.

4. After crossing: you must:

a. Check detector paper (chemical contamination) and radiac instruments (nuclear contamination) to determine amount of exposure.

b. Check for casualties.

c. Decontaminate as much as mission allows.

d. Report any contamination or casualties to your superior.

REFERENCES:

FM 3-12, Operational Aspects of Radiological Defense, Aug 68, Cl and 2 (chap 5, para 5-6)
FM 21-40, NBC (Nuclear, Biological and Chemical) Defense, Oct 77 (chap 2, page 3-2; chap 5, pages 5-5 thru 5-17; chap 7, pages 7-3 thru 7-7)
FM 21-41, Individual NBC Defense, Oct 77 (pages 69-70)

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TASK NUMBER: 092-503-3008

IMPLEMENT MISSION-ORIENTED PROTECTIVE POSTURE (MOPP)

CONDITIONS:

In the field or garrison, given the commander's guidance for MOPP, and all TOE chemical protective clothing and equipment.

STANDARDS:

1. Conduct normal associated duties and tasks in MOPP as directed by the commander for a period of not less than six hours.

2. Adjust the MOPP for heat stress and fatigue in accordance with performance measures below.

PERFORMANCE MEASURES:

1. Mission-Oriented Protective Posture is a flexible system of protection for operations in a toxic chemical environment. It requires the individual to wear his protective clothing and equipment consistent not only with the chemical threat and mission, but also with the heat stress, fatigue, and psychological stress that results from wearing extra clothing for long periods of time.

2. Intelligence indicates that threat forces have a powerful offensive NBC capability and that our Army may have to operate in a high level of MOPP for extended periods of time. Although the commander will normally direct when and what level of MOPP to assume, it will fall upon you as a leader to insure necessary allowances are made for heat, psychological stress, and fatigue consistent with your unit mission. In an isolated situation, you may be required to determine the MOPP level.

3. Your unit SOP will have different levels of MOPP.

a. The lowest level of MOPP requires the individual to dress only in his duty uniform and carry his protective mask stowed in the carrier.

b. The highest level of MOPP will require the individual to wear, in addition to his duty uniform and equipment, protective clothing, gloves, over boots, and protective mask with hood. Table 1 gives examples of the various levels of MOPP, as determined by work rate and temperature. Notice the examples of work rate levels at the bottom of the table.

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★ EXAMPLE VARIATIONS AVAILABLE UNDER THE PROTECTIVE CLOTHING DOCTRINE[1]

Work Rate[2]	Cool (50° — 70° WBGT)[3]	Warm (70° — 85° WBGT)[3]	Hot (85° — 100° WBGT)[3]
Low	Wear full protective clothing and equipment.[4]	Progressively open hood and protective overgarment.	Remove mask, hood, and gloves. Open protective overgarment.
Moderate	Wear Full protective clothing and equipment.[4]	Remove mask, hood, and gloves. Open protective overgarment.	Remove mask, hood, and gloves. Open protective overgarment.
Heavy	Remove mask, hood, and gloves. Progressively open protective over-garment.	Remove mask, hood, and gloves. Open protective overgarment.	Remove mask, hood, and gloves. Remove protective overgarment if mission can be accomplished under overhead cover.

★ NOTE:

1. Extended wearing of chemical protective clothing and equipment is required by the continuing immediate threat of chemical attack or hazard resulting from the known capability of the enemy to produce an unacceptable casualty rate among unprotected personnel.

2. Examples:

Low: Motorized movement or administrative work.

Moderate: Improvement of defensive position or reserve position activity.

Heavy: Infantry dismounted assault or forced march.

3. The WBGT (Web Bulb Globe Temperature), normally provided by the division surgeon, is described in TM MED 175. The specific temperatures quoted in parentheses are temperatures at which the effects were studied in field tests. The WBGT does not differ significantly from ordinary temperature (°F) at a relative humidity of approximately 75 percent.

4. Psychological and physiological factors may require individuals to have brief respites by removing the mask, hood, gloves and protective overboots for 5 to 10 minutes an hour to minimize longer range cumulative adverse effects. For acclimated individuals, the relief periods may be less frequent.

★ Material marked in the manner is differnt or not included in the IIB and IIC series Soldier's Manuals.

NOTE TO TRAINERS: This task should be accomplished in conjunction with Skill Level 1 task: *Put on and wear protective clothing.* If protective overgarments and liner ensembles are unavailable for training, the rubber rainsuit, field gloves, and rubber overboots are acceptable substitutes.

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4. As a small unit leader, you must check your soldiers for:

a. The proper fit and seal on the protective mask.

b. Proper fit of protective clothing. Require the soldiers to assume "stressed" positions such as bending, twisting, and stretching.

5. In a contaminated or potentially contaminated environment, you can reduce stress and fatigue by:

a. Rotating heavy work among individuals. For example, heavy work would be preparing a fighting position, or assaulting an enemy position.

b. Allowing more frequent rest periods. This must be considered along with the mission.

c. Making maximum use of mechanical aids. An example might be riding in your APC as much as possible.

d. Providing adequate water supply.

REFERENCES:

FM 21-40, NBC Defense, Oct 77 (chap 5, pages 5-5 thru 5-17)

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TASK NUMBER: 092-503-4115

EMPLOY SMOKE POTS

CONDITIONS:

Given at least three M5 smoke pots, and a requirement to conceal a platoon defensive position with a smoke blanket or smoke haze. Temperature gradient (lapse, neutral, inversion) and wind speed and direction are known.

STANDARDS:

Select positions and emplace smoke pots IAW performance measures below. Defensive position must be concealed from frontal view as long as wind direction and speed remain constant.

PERFORMANCE MEASURES:

1. To employ any smoke pot, the following factors must be taken into account.

a. Temperature Gradient (figure 1). This refers to the difference in air temperature ½ meter above the ground and 4 meters above the ground. Depending on how these temperatures differ, one of the following conditions will exist:

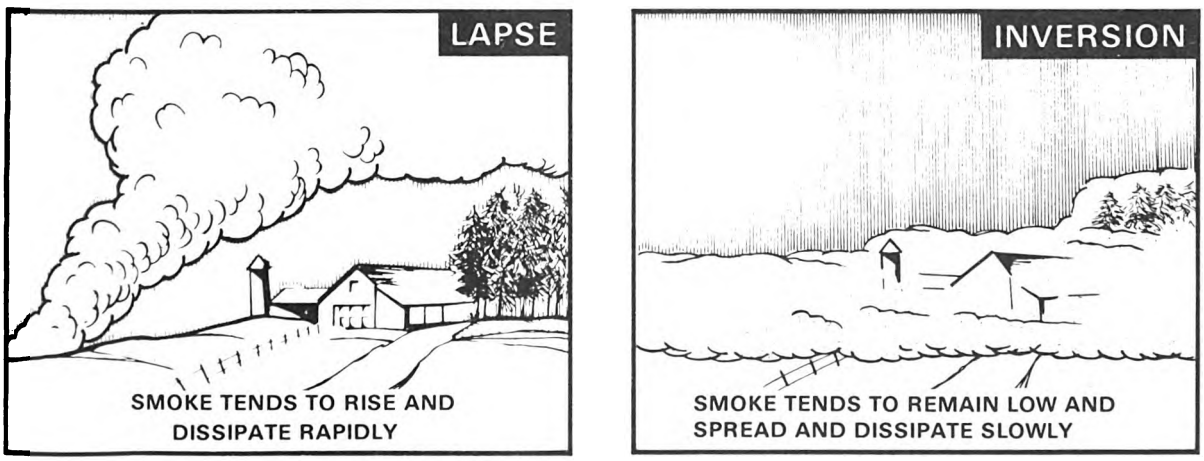

Figure 1. Effect of temperature gradient.

(1) LAPSE - This occurs when the air becomes colder as you get higher above the ground. Because warm air rises, the air will tend to move around more. This means the smoke will rise faster and not remain as long.

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(2) INVERSION - This occurs when the air gets warmer as you get higher above the ground. This will make the smoke last longer and stay closer to the ground. But, it also means it will take a little longer for the smoke to spread out along the ground.

(3) NEUTRAL - This occurs when the conditions are between lapse and inversion. It is usually favorable for the use of smoke.

NOTE: You should be able to find out what condition exists from your battalion S2, but if you're unable to get the information, you can follow these general guidelines. When there is a good cloud cover, the air is usually stable and an inversion exists. As clouds disappear or when there are no clouds, usually a lapse condition occurs. At night when clouds are few or disappear, air becomes stable and an inversion exists.

b. Wind Speed. This will affect how many smoke pots you use and how far from your position you must place them. The best wind speed for smoke use is 4 - 10 knots/hour (roughly 7 - 18 miles/hours). For any wind speed faster than this, more smoke pots than normal must be used.

c. Wind Direction. This is the direction from which the wind blows. Smoke pots are set up in a line between the wind direction and the area to be concealed. If wind blows from the flank or side of your position, it will require fewer smoke pots. If it blows from the front or rear of your position, it will require more smoke pots.

d. Terrain. Smoke will normally follow the contour of the earth, if other conditions allow it. If the terrain is flat and unbroken, the smoke will move slowly along the ground, taking longer to become an effective smoke screen. If the contour of the earth is flat, but broken with buildings or clumps of trees and bushes, the smoke will tend to break up and mix together again, allowing for a more rapid screen being set up. If the terrain is rugged with hill masses, the smoke will not spread out evenly due to cross air currents.

2. Actual emplacement of the smoke pot is a simple operation. Smoke pots should be dug in whenever possible and they should be placed in position upside down. This will allow you to conceal the glare from the burning smoke pot. If placed in this manner, set the smoke pots on bricks or stones to allow the smoke to escape freely. Otherwise, construct a makeshift flame shield from an old oil drum, or scrap metal. The burning time of the M5 smoke pot is 12 - 22 minutes. If you wish the smoke screen to last longer, the smoke pots can be stacked or laid end to end. The heat from one burning pot will ignite the next. Finally, smoke pots can be ignited electrically using WD-1. See TB CML 100, Apr 64, for instructions.

3. To conceal any location using smoke pots, follow this sequence of actions.

a. Determine how large an area you wish to conceal.

b. Determine wind speed and temperature gradient (lapse, neutral, inversion).

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c. Observe the terrain to be concealed and determine wind direction.

d. Choose a spot between your position and the wind direction for the smoke line. This line should be located at a distance from the target, 10 times greater than the spacing between smoke pots.

e. See figure 2 for proper spacing between smoke pots.

Type of terrain	Smoke pot[1] spacing (in meters) at wind speeds of:[2 3 4]		
	1-7 knots (1-13 kmph)	8-13 knots (15-24 kmph)	14-17 knots (26-32 kmph)
UNDER LAPSE CONDITIONS			
Over Water	25	20	15
Open Terrain	25	20	15
Woods	30	25	20
UNDER INVERSION AND NEUTRAL CONDITIONS			
Over Water	25	20	15
Open Terrain	25	20	15
Woods	35	25	20

[1]Type smoke pots are: AN-M7 and AN-M7A1 SGF2 floating smoke pots, M4A2 HC floating smoke pots, and ABC-M5 HC smoke pots.
[2]Spacings given are for a line of smoke pots normal (perpendicular) to the wind direction.
[3]The distance between the near edge of the target and the smoke pots should be at least ten times the spacing between smoke pots.
[4]Spacings given are for producing smoke blankets. For establishing smoke hazes, spacings twice those indicated in the table can be used, and smoke pots should be placed five times the distance between generators from the near edge of the target.

Note. Spacings for M1 HC smoke pots must be determined by trial in the field.

Figure 2. Spacing guide for smoke pots.

f. Emplace smoke pots.

g. Ignite as required.

REFERENCES:

FM 3-50, **Chemical Smoke Generator Units and Smoke Operations,** C2, Apr 67 **(chap 4, pages 15-23, para 32-47)**

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TASK NUMBER: 092-503-4116

SUPERVISE USE OF UNIT RADIAC EQUIPMENT

CONDITIONS:

In a simulated NBC environment, given radiacmeters, AN/PDR-27, IM-174 or IM-174A/PD, IM-93 or IM-93A/UD, unit survey and monitoring team, and a requirement to begin radiological monitoring.

STANDARDS:

1. Insure the selection of the correct radiacmeter for the mission.
2. Conduct a ground survey IAW performance measures below.

PERFORMANCE MEASURES:

1. Instruments (figure 1):

a. The IM-174/PD and IM-174A/PD are used for area monitoring and survey. They measure gamma radiation in units from 1 to 500 rad/hr. They are dose-rate instruments.

b. The AN/PDR-27 (*) is used to monitor personnel, food and equipment. It will measure gamma radiation and detect beta. It is a dose-rate instrument. * Indicates all models of the series.

c. The IM—93 (*)/UD is used to measure total radiation dosages received. It measures gamma radiation up to a total dose of 600 rads. It is a total dose instrument. * Indicates all models of the series.

2. Missions:

a. Monitoring (does not divert personnel from regular duties).

(1) Periodic - Routinely conducted during nuclear warfare at a designated point at least once each hour.

(2) Continuous - Initiated when periodic monitoring indicates above 1 rad/hr; when a fallout warning is received; when moving; when a nuclear burst is observed; on order.

b. Survey - A directed effort to determine the degree and extent of nuclear radiation. Takes personnel away from their basic mission.

3. Tactical dosimetry: The tactical dosimeters are read at least once daily. The difference between the previous reading and the current reading is obtained for each dosimeter. These values are averaged, rounded off to the nearest 10 rad, and reported.

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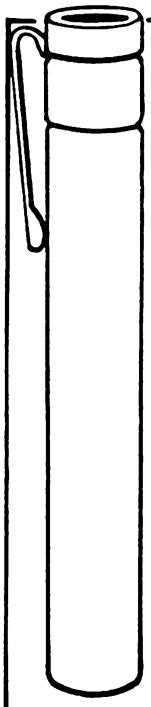
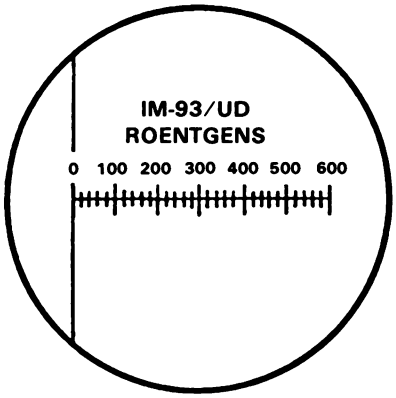
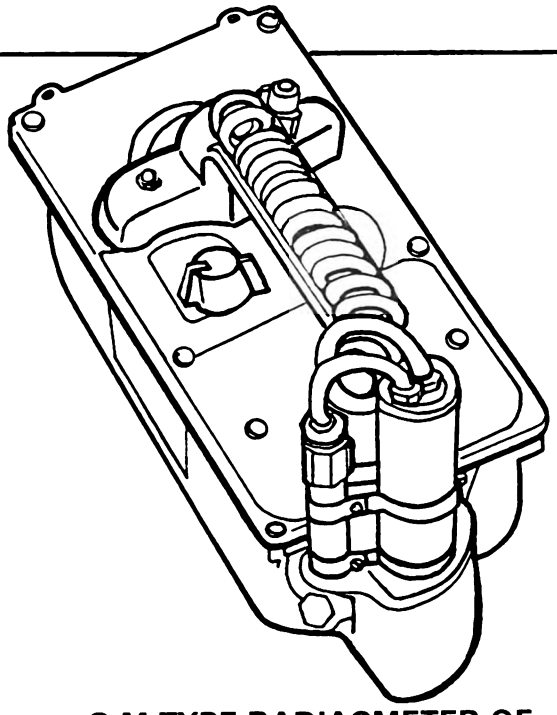


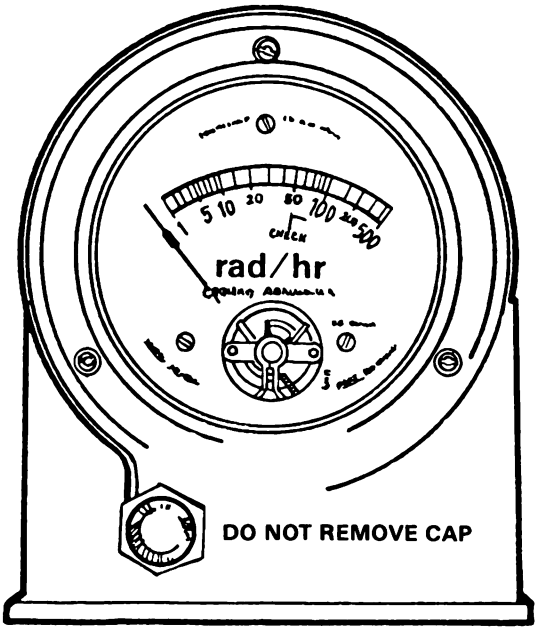


ACTUAL LENGTH 4½ INCHES

IM-93/UD DOSIMETER



G-M TYPE RADIACMETER OF
AN/PDR-27 (*) RADIAC SET



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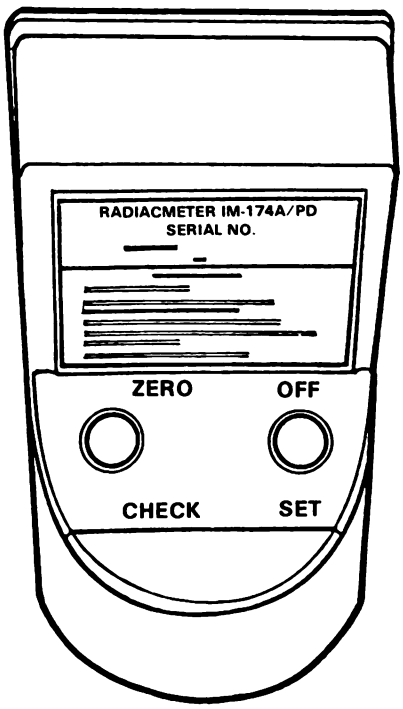

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IM-174A/PD RADIACMETER

Figure 1. Radiac instruments.

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4. Radiological surveys: Radiological survey is the directed effort to determine the extent and dose rates of radiation in a specified area. There are two types of survey:

a. Air - which provides the most rapid means of collecting data, and exposes the least number of personnel to the least amount of radiation.

b. Ground - which takes longer, exposes more personnel to more radiation, but is independent of weather conditions, can be conducted at night, and provides more accurate data.

c. There are three types of ground surveys:

(1) Point - measurements are taken only at preselected points in a given area.

(2) Route - measurements are taken at regular intervals over a predetermined route through a given area.

(3) Preselected dose-rate - a predetermined route is followed and locations are plotted where a given preselected dose rate is observed. Of these, the route method will be the one most often used.

d. Surveys are performed by one or more radiological survey parties and a control party. A ground survey party includes a monitor, who operates a dose-rate meter and records all survey data, and an assistant, who may be a driver or radio operator or both. Additional personnel may be included in a survey party for security or other reasons. The control party directs the survey, collects the data reported, and assembles the data into a usable form. The control party and survey parties are usually organized and equipped with unit resources.

e. As a rule, company-size units organize and train at least two survey parties (primary and alternate) for each dose-rate survey meter; only one party will be equipped with a survey meter. Survey parties are organized to use organic vehicles that provide maximum protection against nuclear radiation; for example, armored vehicles for mechanized units. Air-ground correlation factors, and correlation factors for vehicles and structures are given in FM 3-12.

5. Operation exposure guidance (OEG): OEG is normally determined by a higher level command and gives a unit the means to determine how much radiation it can be exposed to with little or no risk. It is calculated from the unit's radiation history. That is, it is based upon how much total radiation the unit has been exposed to so far. For example, the total dose a unit may receive might be 150 rads. If the unit radiation history says that the unit has already been exposed to 75 rads, then it can be exposed to only 75 rads more. It is very difficult to predict whether the personnel on a survey will receive no more than 75 rads. But they must have a way to determine whether they are receiving too much radiation. They can if they know the TURN BACK DOSE RATE (Rtb) and the TURN BACK DOSE (Dtb).

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a. The TURN BACK DOSE RATE (R_{tb}) is figured from the following formula:

$$R_{tb} = \frac{2 \text{ x OEG x speed}}{\text{distance}}$$

The commander has informed you that, due to the previous radiation exposure of the unit, the operation exposure guidance (OEG) is set at 20 rads. The survey is to be conducted at a speed of 10 mph. The distance to be covered by the survey is 5 miles. Using the formula:

$$R_{tb} = \frac{2 \times 20 \text{ rads (OEG)} \times 10 \text{ mph}}{5 \text{ miles}} = 80 \text{ rads/hr}$$

The TURN BACK DOSE RATE then is 80 rads/hr.

When a survey party encounters the TURN BACK DOSE RATE, unless instructed otherwise, it will leave the survey area immediately by the same route it came.

b. TURN BACK DOSE (D_{tb}) is figured from the following formula:

$$D_{tb} = \frac{OEG}{2}$$

Using the OEG (20 rads) given by the commander, we find that the TURN BACK DOSE (D_{tb}) = $\frac{20 \text{ rads (OEG)}}{2}$ = 10 rads.

When the survey party encounters this dose, and the dose rate is increasing as they progress, unless otherwise instructed they will immediately leave the survey area by the route on which they came.

6. To supervise the conduct of a survey mission:

a. Determine the area to be surveyed.

b. Organize the survey and control as required.

c. Plan for the type of survey to be conducted, i.e., point, route, or predetermined dose rate.

NOTE: Planning the details of the survey should be accomplished with the NBC NCO.

d. Obtain OEG and calculate TURN BACK DOSE RATE (R_{tb}) and TURN BACK DOSE (D_{tb}).

e. Secure adequate transportation. Armored personnel carriers are best suited for ground survey since they afford the best protection for survey personnel.

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f. Coordinate with all adjacent and subordinate units in the area of operation.

g. Become familiar with the individual exposure history of all survey personnel.

h. Brief the survey and control parties.

i. Conduct the mission.

REFERENCES:

FM 21-40, NBC Defense, Oct 77 (Chap 3, page 3-5 thru 3-8; app B, page B-15 and B-16)

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TASK NUMBER: 031-503-4003

SUPERVISE TACTICAL DOSIMETRY OPERATIONS

CONDITIONS:

Given the mission to conduct tactical dosimetry operations, dosimeters, and operators trained to use them.

STANDARDS:

An accurate indication of the total dose of radiation received by individuals in the unit is given by insuring that the:

a. Total dose is reported accurately.

b. Report is given at least once daily.

PERFORMANCE MEASURES:

1. Check all dosimeters to be used for the operation to insure they all read 0. If dosimeter does not, turn it in for charging.

NOTE: A platoon-size unit will normally be issued two dosimeters.

2. Select personnel to wear the dosimeter. These individuals should be performing duties within the unit's area.

3. Insure that the personnel wearing these dosimeters report the readings to you accurately (see task: 031-503-2001).

4. At the same time (at least once daily), collect the readings from your personnel.

5. Average these readings to the nearest 10 rads and report the average to your supervisor.

NOTE: If there is any reason to believe that the reading from one dosimeter is not representative of the unit, then do not use that reading in computing the average.

6. Continue these operations until directed to stop.

REFERENCES:

None

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TASK NUMBER: 092-503-4004

PREPARE AND SUBMIT NBC-4 REPORT

CONDITIONS:

Following a simulated or actual nuclear attack, given a unit monitor, a dose-rate instrument, correct format for NBC-4 report, FM tactical radio, paper and pencil.

SITUATION: Having received, from the unit monitor, a dose-rate reading(s), location(s) where reading(s) was taken, and time(s) of reading(s).

STANDARDS:

Within 5 minutes, prepare information for an NBC-4 report (using correct format) for transmission to your next higher headquarters.

PERFORMANCE MEASURES:

1. **The initial detection of 1 rad/hr will be reported to the company with an IMMEDIATE precedence on the company command net.**

a. The report will be made in the clear (unless otherwise specified), giving location, dose-rate reading, and time detected. The company will submit an NBC-4 report (figure 1) to battalion with an immediate precedence.

b. Purpose. The NBC-4 report is used for radiation dose-rate measurements.

c. Format.

(1) Letter items Q, R, and S may be repeated as often as necessary.

(2) Radiation dose-rate is measured in the open, 1 meter above the ground. Other conditions (such as measurement from within a track or bunker, etc.) will be specified in the message. See task: **Supervise use of unit radiac equipment.**

d. Users of NBC-4 are not confined solely to the use of the letter items shown in figure 1.

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LETTER	MEANING	EXAMPLE
	Precedence	_____
	Date/time (local or ZULU time, state which)	_____
	Security Classification	_____
	From	_____
	To	_____
	Type of Report	NBC 4 (NUCLEAR)
Q.	Location of reading (UTM).	Q. LB 123987
R.	Dose rate (rad/hr). The words "initial," "increasing," "peak," or "decreasing" may be added.	R. 35 INITIAL
S.	Date/time of reading (local or ZULU, state which).	S. 201735 (local) Q. LB 129965 R. 60 S. 201650 (local) Q. LB 146808 R. 27 INCREASING S. 201710 (local)

Figure 1. Example of an NBC-4 Report.

2. **Company reporting procedure.**

a. The company will maintain a monitor at the CP. When appropriate, the monitor will make routine checks of the company area and CP per unit SOP.

b. Subsequent reports will be screened and consolidated by the company. Reports will be submitted as the dose rate in the area is rising; at the first indication that the dose-rate is beginning to decline; and after that as the battalion directs. These reports will be assigned an IMMEDIATE precedence.

REFERENCES:

FM 21-40, NBC Defense, Oct 77 (chap 6, page 6-20 and 6-21)

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TASK NUMBER: 092-503-4117

PLAN FOR UNIT DECONTAMINATION OF EQUIPMENT

CONDITIONS:

Given a mission to decontaminate items of unit equipment exposed to fallout or chemical contamination, a suitable location to accomplish the mission, sufficient personnel, and unit survey/monitoring team.

STANDARDS:

Develop a plan to decontaminate unit equipment which provides for:

1. Early identification of the contaminant.

2. Minimum exposure to personnel in surrounding areas and personnel involved in decontamination.

3. Sufficient supplies of decontaminants, protective and detection equipment.

4. A work schedule for decon personnel based upon MOPP.

5. A priority of equipment decontamination.

6. Continuous monitoring of contamination of the site and adjacent areas.

7. Site security and camouflage.

8. Adequate disposal of contaminants.

PERFORMANCE MEASURES:

1. Once you are given the mission to plan the decontamination of unit equipment, you must insure that the decontamination site:

a. Has an adequate supply of water. The best solution to this would locate the site near a natural water supply. It should be remembered though, that population centers are also located near natural sources of water. The site should be located far enough from the water source to prevent the contaminants from reaching it.

b. Is located downwind of friendly personnel and populated areas, whenever possible. This may be difficult, but at least the friendly unit locations and populated areas should be far enough downwind so as to be exposed to a minimum hazard. Coordination with friendly unit commanders and civil authorities may be necessary.

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c. Provides a location for disposal of contaminated wastes (usually by burial or burning). See TM 3-220, Chemical, Biological, and Radiological Decontamination, Nov 67 C1, 2, and assigned chemical personnel for disposal of contaminated water.

d. Provides some degree of natural cover and concealment or allows easy camouflaging.

2. Trained survey/monitoring personnel must be on site at all times. Their job will be to determine the nature and extent of contamination of the equipment. They must monitor the site area to insure contamination does not spread. Additionally, they must monitor site personnel, to prevent them from being overexposed to contaminants.

3. Support for an equipment decontamination site requires thorough planning. Once an estimate of the amount of contaminated equipment is made, adequate decontaminants must be secured. Whenever possible, readily available natural decontaminants (aging, weathering, earth, and water) should be used. Miscellaneous decontaminants (soaps, detergents, solvents, and absorbants) are also readily available. Standard decontaminants (STB, DS2, BPL, and M13 and M258 decon kits) must be requested through supply channels. Supply personnel must be advised so that adequate amounts can be planned for. In addition, standard protective clothing, decontamination apparatus, filters, protective masks, toxic agent antidotes, medical supplies, detection equipment expendables, batteries and monitoring equipment must be secured. For planning data, see FM 3-8, Chemical Reference handbook, Jan 67, C1-4, chap 4, 5, 6, and 7.

4. Decontamination of toxic agents is hard, dangerous work and must be performed in the highest level of MOPP. This will place considerable stress and strain upon site personnel. Frequent rest breaks and rotation of personnel must be planned for. Refer to task: **Implement mission-oriented protective posture.**

5. A priority of equipment decontamination must be established based upon situation and mission. For example, in armor and mechanized units, vehicles will probably be decontaminated first; in signal units, radio transmitter will be first; and in infantry units, crew-served and AT weapons.

6. Site security will be necessary not only for possible defense of the area, but also to prevent friendly personnel and civilians from accidentally coming too close to the area. A route to the site from the location of NBC attack must be marked and patrolled until it can be decontaminated.

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7. If the scale of decontamination is small, some of the planning factors may not be observed and, based upon the situation, there may not be time to plan or put into effect all the above-mentioned measures. But whenever possible, consideration should be given to all measures which will insure rapid, effective accomplishment of the mission without sacrificing the safety and well being of all personnel involved.

REFERENCES:

FM 3-8, Chemical Reference Handbook, C1-4, Jan 67
TM 3-220, Chemical, Biological, and Radiological Decontamination, C1, 2, Nov 67 (chap 1, 2, 3, and 4; app B, C, F)

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TASK NUMBER: 071-327-0202

LEAD PHYSICAL CONDITIONING ACTIVITIES

CONDITIONS:

Given a platoon or company size unit in formation, with a requirement to conduct a specified physical activity. (Activity will be predesignated so that time is available for preparation.)

STANDARDS:

1. Be physically fit to lead physical conditioning activities.

2. Give enough time between commands to permit the average man to understand the preparatory command before the command of execution is given.

3. Be able to form and control the extended rectangular formation, circle formation, and double-time column (while performing the run portion of physical conditioning activities).

4. Lead each exercise in accordance with FM 21-20.

5. Demonstrate each exercise (at least three repetitions) with cadence.

6. Follow guidance given concerning what, when, where, and how long activity is to be conducted.

PERFORMANCE MEASURES:

1. **How to prepare.** Once guidance is given concerning the conditioning requirement, preparations must be made.

a. What is the requirement? You must be familiar with the exercises in FM 21-20 if leading them is your requirement. This will require study and practice. It is also your responsibility to insure that your assistant instructors (if available) know the exercises so they can effectively supervise and demonstrate. If your requirement is, or includes, a conditioning run, you must insure that your road guards (if used), pace men, lead rank, and assistant instructors are proficient enough runners to set a good pace (and example) for the rest of the group.

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b. When? An assigned starting time is just that. It is your responsibility to insure that the requirement does start on time and a system is set up to deal with late arrivals. Your assistant instructors should note the name of any individual who is late, then place him in the formation. He still needs to take part in the conditioning; he can be sent to his supervisor to explain and be dealt with after the formation.

c. Where? Once given a location to perform the requirement, you must determine if it is feasible to do it there and what plans must be made to best fit the requirement to the area. The area must be large enough. If it is a controlled area, you must insure that only you have planned to use it during your requirement time period. If the area becomes useless during bad weather (for example, knee deep in mud when it rains), an alternate area must be secured.

d. How long? You will be given a period of time in which to complete the requirement. Plans should be made with an eye to coming as close as possible to the required time **without going over it** since improper use of time can snowball through a training day and wreck a unit's schedule and morale. Timing is a function of practice. Rehearse exercises. On a run, match a realistic pace to an appropriate distance. You, not the pace man, are responsible for the pace. Allow yourself a small time leeway and don't make the instructor for the next period suffer for your lack of timing.

2. **Preparatory commands and commands of execution.** The **preparatory command** describes and specifies what is required, and the **command of execution** calls into action what has been prescribed. All preparatory commands are given with a rising inflection. The interval between commands is long enough to permit the average man to understand the first one before the second one is given.

3. **Extended rectangular formation** (figure 1). The formation used most frequently for carrying on physical training activities is the extended rectangular formation (figure 1). This formation is the best type to use for large numbers of men because it is easy to control. The following commands are given to form this formation.

NOTE: In figure 1 the baseman is represented by a white circle.

a. FALL OUT AND FALL IN ON THE BASEMAN. At this command, all personnel run to the designated area and re-form. This procedure is preferred to marching the unit into position. If more control is desired, the unit may march at double time to the vicinity of the baseman and then be directed to fall out and fall in on him. Time is wasted in the field due to needless maneuvering of troops at quick time in an effort to position the unit on the exact spot for the exercises.

b. A company size unit assumes the extended rectangular formation from a column of three's or four's at normal intervals between squads. This extension can also be executed from a company mass without interval

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between platoons. In extending either a platoon or company size unit take your place at the head of the column and command.

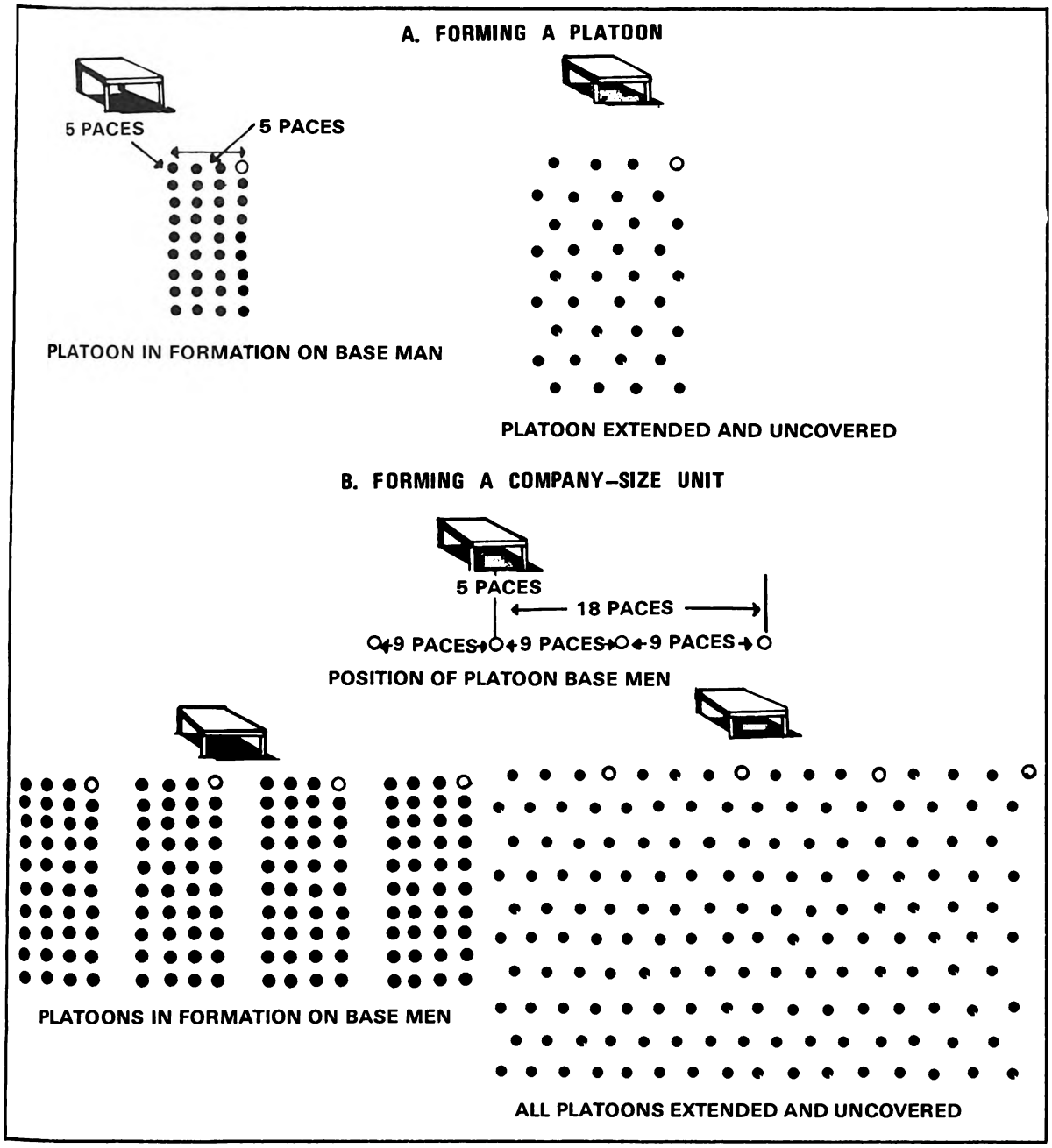

Figure 1. Forming the extended rectangular formation.

(1) **EXTEND TO THE LEFT, MARCH.** At this command, the men in the right flank file stand fast with arms extended sideward. All other men turn to the left and run forward at double time. After taking a sufficient number of steps, all men face the front with both arms extended sideward. The distance between fingertips is about 12 inches and dress is right.

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(2) **ARMS DOWNWARD, MOVE.** At this command, the arms are lowered smartly to the sides.

(3) **LEFT, FACE.**

(4) **EXTEND TO THE LEFT, MARCH.** At this command, the men in the right flank file stand fast with arms extended sideward. All other men turn to the left and run forward at double time. Spacing is the same as in (1) above and dress is right.

(5) **ARMS DOWNWARD, MOVE.** Same as in (2) above.

(6) **RIGHT, FACE.**

(7) **FROM FRONT TO REAR, COUNT OFF.** At this command, the leading man in each column turns his head to the right rear, calls off "one" and faces the front. Successive men in each column call off in turn, "two", "three", "four", "five", in the same manner.

(8) **EVEN NUMBERS TO THE LEFT, UNCOVER.** At this command, each even numbered man stride-jumps to the left, squarely in the center of the interval. In doing this, he swings his left leg sideward and jumps from his right foot to his left foot and smartly brings the right into position against the left.

c. To assemble the unit, command: **ASSEMBLE TO THE RIGHT, MARCH.** At this command, all return to their original position in the column at double time and reform on the baseman.

d. It is recommended that the area for grounding equipment and weapons be at the edge of, or well away from the area to be used for exercising. To conserve time and insure proper position of the unit, the baseman or, if the unit is composed of several platoon size groups, the various basemen may precede the unit and establish their positions in relation to the instructor's platform.

4. **Circle formation.** The circle formation is effective for the conduct of various exercise activities (figure 2). This formation has an advantage in that the supervision of all men is facilitated and a moving formation is available which provides control. Guerrilla exercises, grass drills, and some forms of running, are examples of activities which are more easily conducted in the circle formation than in the extended rectangular formation.

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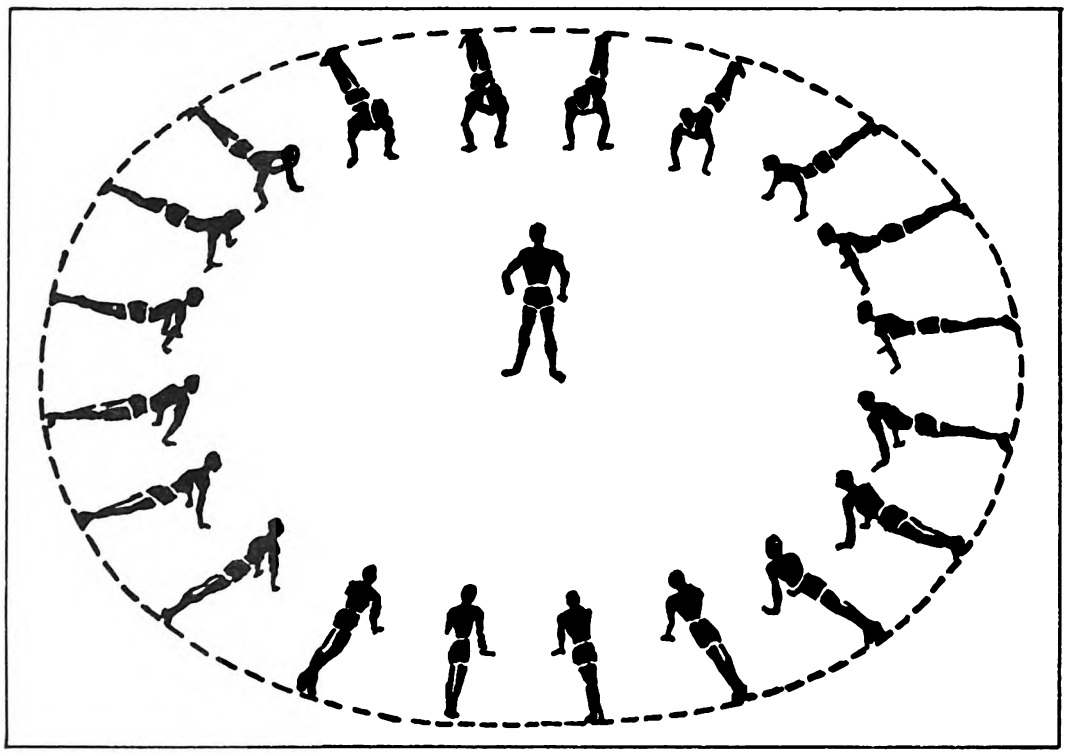

Figure 2. The circle formation.

a. When a platoon is to form a circle, the commands are **CIRCLE FORMATION, MARCH, FOLLOW ME.** Upon this command the right flank squad of the column moves forward at double time with the leader of the platoon group gradually forming a circle in a counterclockwise direction. Each succeeding file falls in behind that on the right. After the rough outline of the circle is formed, the leader commands, **PICK UP A FIVE YARD INTERVAL.** This is to insure the interval between men is uniform prior to starting exercises.

b. The group may be halted and faced toward the center, or, if instruction is not necessary, the exercise activity may be executed without stopping the platoon.

5. **Conditioning run.** This is nothing more than a column moving over a prescribed course at double time. Reflector-vested road guards must be placed ahead of and behind the column if the course follows a road or vehicle trail. A designated pace man runs in the right guide position and, under the direction of the instructor in charge, sets and maintains the pace for the run. Routes should be selected and announced, if necessary, in accordance with post and unit SOPs.

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6. **Leadership Techniques.**

a. Unless you experience all of the exercises you cannot appreciate how strenuous they are, what movements are the most difficult, where the errors in performance are likely to occur, and what the proper cadence should be.

b. You must give all the men careful supervision and participate in the exercises to show that you can do them. When you participate, your assistant instructors should supervise because it is difficult for you to supervise and exercise simultaneously.

c. The men should never be kept too long in one position, especially a constrained one. They should never have to perform so many repetitions of an exercise that they lose the correct form. Slight deviations from the proper form reduce the value of the exercise.

d. Avoid long explanations. As a rule, it should be necessary to give a full explanation of new exercises only once. Minor corrections should be made to the entire class while the exercise is in progress (for example, "heads up", "knees straight"). If necessary, follow this correction by the name of the man who is at fault.

e. The heavy demand on your voice can be lightened by training assistant instructors to assume some of the instruction and by employing mass cadence.

f. Insure each exercise is performed in accordance with FM 21-20. Review and practice is usually required in order to perform them properly.

g. Use of a cue card (3 x 5 or scrap of paper) is recommended while leading exercises. This will prevent forgetting any exercise and help present a smooth period of training.

REFERENCE:

FM 21-20, Physical Readiness Training, C1, Mar 73 (chap 10, pages 35 to 41)

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TASK NUMBER: 081-889-0001

REQUEST/CONTROL MEDICAL AIR EVACUATION OF CASUALTY/CASUALTIES

CONDITIONS:

During daylight, in a field environment, given a standard 1:50,000 scale military map, grid coordinate location, FM tactical radio, frequency and callsign, medic (optional), marking material (engineer tape, panels, rocks, etc.), and a casualty/casualties with an injury/injuries that cannot be treated on the site or an injury/injuries that has been treated and still requires medical air evacuation.

STANDARDS:

1. Select and mark an appropriate landing site for medevac aircraft (minimum requirement for light helicopter is a cleared area 100 feet in diameter with an approach and departure zone clear of obstructions) or insure that medevac personnel are aware of lack of a landing site.

2. Call for and request air medevac using the following elements in sequence:

a. **Location** - Two-letter 100,000 grid identification and 6-digit grid coordinate.

b. **Radio Frequency/Callsign** - Radio frequencies and callsign of unit requesting the air medevac.

c. **Precedence** - Urgent, priority, or routine, as recommended by medical personnel present or by ranking individual on the site.

d. **Special Equipment** - Hoist, jungle/forest penetrator (for dense tree growth), or equipment deemed necessary by medical personnel.

3. Prior to arrival of medevac aircraft, obtain the following information concerning the casualty/casualties:

a. **U.S. Personnel** - Name, rank, social security number, and organization (if applicable).

b. **Other Personnel** - Name and nationality.

4. Load and aid in positioning of casualties aboard medevac aircraft. If there is more than one casualty, load the most serious litter casualties last. Insure that weapon(s) accompanies casualty/casualties.

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PERFORMANCE MEASURES:

1. **Selection and Marking of Helicopter Landing Sites.** The unit requesting air ambulance service is responsible for selecting and properly marking the helicopter landing site(s).

a. The helicopter landing site and approach zones to the areas should be free of obstructions. Inclosed areas of restricted space, such as small clearings, should be avoided. The approach zones should permit the helicopter to land and take off into the prevailing wind.

b. Definite measurements for landing sites cannot be prescribed, since they must vary with temperature, altitude, wind, terrain, loading conditions, and individual helicopter characteristics. The minimum requirement for a light helicopter is a cleared area 100 feet in diameter with an approach and departure zone clear of obstruction.

c. The landing site should be outlined with material, such as engineer tape or rocks, of a color contrasting with the background. Where the tactical situation permits, a landing site may be marked using identification panels or other appropriate marking material.

2. **Requests.** Army medical air evacuation requests will include the following elements in the sequence listed:

a. **Location.** Grid coordinates will contain the 6-digit grid location and be preceded by the 100,000-meter grid identification.

b. **Radio Frequency/Callsign.** The frequency and callsign should be that of the radio at the site of the unit requesting the medical evacuation.

c. **Patient Category of Precedence.** This is the movement (pickup) precedence as recommended by the medical personnel or ranking individual if no medical personnel are present at the casualty location.

(1) **Urgent.** Emergency cases which must be evacuated immediately to save life or limb. It is used when evacuation is required within two hours.

(2) **Priority.** Casualties requiring prompt medical care not locally available. This is used when it is anticipated that the casualty must be evacuated within 4 hours or his medical condition will deteriorate and become an urgent case.

(3) **Routine.** Casualties requiring evacuation, but whose condition is not expected to deteriorate the first several hours or longer. **NOTE: Psychiatric cases are considered in this category.**

d. **Special Equipment/Emergency Medical Supplies.** These may include, but are not limited to, a hoist or jungle/forest penetrator (used to evacuate a casualty from a dense growth of trees and vegetation which prevents a medevac aircraft from landing) or other medical supplies, as deemed necessary by the medical personnel present at the casualty site.

NOTE: The location, callsign and radio frequency, category of precedence, and special equipment should always be transmitted

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first because they are essential for an air ambulance mission to be conducted. The following items should also be sent when the time and situation permit.

e. Number and Type of Casualties. Example: 2 litter and 1 ambulatory patient.

f. Type of Injury, Wound, or Illness. Example: Penetrating gunshot wound (FSW) of abdomen, first and second degree burns over 30 percent of body, etc.

g. Patient Nationality. Self-explanatory, e.g., U.S. military, civilian, third-country national.

h. Security of Pickup Site. Information on the enemy. Example: Enemy forces located approximately 300 meters south of this location; presently receiving incoming indirect enemy fire. (If there is no enemy activity, so state.)

i. Site Marking. This is the method of marking the site. It may be smoke, panels, flares, etc., or other means as directed by the pilot.

j. Weather at Pickup Site. Cloudy, windy, rainy, sunny or clear, etc.

k. Terrain Description. Self-explanatory, e.g., flat and open, slope, pinnacle, etc.

3. **Information Concerning Casualties.** Prior to the arrival of medevac aircraft, obtain the following information from the casualty/ casualties.

a. U.S. Personnel - Name, rank, social security number, and organization.

b. Other Personnel - Name and nationality. This information is used for locating the casualty after he is evacuated and hospitalized.

4. **Responsibility for Loading and Security.** The pilot of the aircraft is responsible for insuring that prescribed methods of loading and securing litters and related equipment are followed by the personnel loading patients in the helicopter. The final decision as to how many patients may be safely loaded lies with the pilot in command of the aircraft. If there is more than one casualty, the most serious litter casualties should be loaded last so they can be unloaded first upon arrival at the field hospital.

REFERENCES:

FM 8-15, Medical Support in Divisions, Separate Brigades, and the Armored Cavalry Regiment, Sep 72 (chap 6, page 6-2)

TM 8-35, Evacuation of the Sick and Wounded

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TASK NUMBER: 071-326-0515

SELECT A MOVEMENT ROUTE USING A MAP

CONDITIONS:

Given an operation order (or frag order) in which the antiarmor platoon is in general support of the battalion, a 1:50,000 map, a compass, and a tactical situation in which you have been given a mission which requires a movement between two given points in an areas where the likelihood of any enemy contact is unknown.

STANDARDS:

Select the route that exhibits the best blend of the following points:

1. Takes advantage of maximum cover and concealment.

2. Insures the best observation and fields of fire for the overwatch elements.

3. Allows positive control of all elements.

4. Accomplishes the assigned mission as quickly as possible without unnecessary or prolonged exposure to enemy fire.

PERFORMANCE MEASURES:

1. The antiarmor platoon has two primary requirements — to move and to fight. Your platoon will spend far more time moving than actually fighting. This fact makes it important for you to use the terrain to your best advantage, because a moving unit usually contacts the enemy at a time and place of the enemy's choosing.

2. Proper use of the terrain will give you two main advantages:

a. Cover and concealment to protect the platoon during movement.

b. Maximum effectiveness of the platoon's weapons.

3. To exploit these advantages, you must fully understand the military aspects of terrain and be able to apply them to any given situation whether it be an attack, a delay, or a road march behind the FEBA.

a. The primary requirement for any type of movement on the battlefield is cover and concealment.

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(1) Cover is any type of shielding from the effects of weapons fire, especially direct fire. You must take advantage of every ravine or depression in the ground to protect and cover your force, especially if you are forward of the FEBA. You must evaluate the terrain, the capabilities of the enemy's weapons, and the positions of known or suspected enemy emplacements. To determine cover, visualize a cross-section of the terrain and determine where the enemy cannot place effective direct fire on your proposed route.

(2) Concealment is anything that hides or disguises your force. You must consider concealment from both air and ground observation. If you are mechanized, don't forget that exhaust smoke or dust can reveal your unit to the enemy.

b. If you are moving in an area where contact with the enemy is expected, such as in the attack or in a movement to contact, you must insure that your proposed route can be covered by fire from your overwatch or fire support positions. These positions must have good observation and fields of fire.

(1) Direct fire weapons must have good observation to fire at known or suspected enemy positions along your movement route. You must have observation to control the maneuver of your sections if they make contact. Consider the effects of smoke and dust from friendly and enemy fire.

(2) Select a route that provides your unit with the best fields of fire available. If you are conducting a movement to contact, the overwatch positions that you select must have unobstructed fields of fire to the next overwatch position.

4. No matter what your mission, you must select the route that provides the most favorable tactical advantage and meets the mission requirements. If enemy air is active or enemy ground forces are in the area of the route, you must take maximum advantage of cover and concealment. If speed of movement is a critical factor, the route should be over the most easily negotiable terrain, avoiding obstacles that are difficult to maneuver around. If the chances of getting lost are great, the route should include movement from one easily distinguishable terrain feature to another. If you are given an axis of advance by the company commander in his order, you must evaluate the terrain based on the above considerations and select a route that will get you to the objective on time with the least casualties.

5. Planning a route can be greatly aided by the use of special purpose maps and aerial photographs. If these aids are available, use them to insure that you have the latest possible information.

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6. Map reconnaissance, however, is no substitute for ground reconnaissance. If time is available and the tactical situation permits, reconnoiter the ground that you have to move over.

REFERENCES:

FM 7-7, The Mechanized Infantry Platoon and Squad, 30 Sep 77 (chap 3, sec II, pages 3-3 to 3-24)

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TASK NUMBER: 071-331-0820

ANALYZE TERRAIN USING THE 5 MILITARY ASPECTS OF TERRAIN

CONDITIONS:

Given any tactical mission which involves a specified route or location on the ground or map.

STANDARDS:

Analyze route or location in terms of the military aspects of terrain (observation and fire, concealment and cover, obstacles, key terrain, and avenues of approach) and determine how each affects the mission.

PERFORMANCE MEASURES:

Terrain is analyzed in terms of its five military aspects (observation and fire, concealment and cover, obstacles, key terrain, and avenues of approach) to determine the effect of terrain on the general courses of action available to friendly and enemy forces.

1. **Observation and Fire.**

a. Observation depends on conditions of terrain which permit a force to locate the enemy either visually or through the use of surveillance devices. The best observation generally is obtained from the highest terrain features in an area. The effects of visibility on observation are analyzed with weather. Visibility and observation are analyzed independently because visibility varies with weather conditions, whereas observation varies with terrain conditions which are relatively permanent.

b. Fire encompasses the influence of the terrain on the effectiveness of direct and indirect fire weapons. The fires of indirect fire weapons are affected primarily by terrain conditions within the target area. Fields of fire for direct fire weapons are primarily affected by terrain conditions between the weapon and target.

c. You, the squad leader, must identify those terrain features within and adjacent to the area of operation which afford the friendly or enemy force favorable observation and fire. You consider them in your subsequent analysis of concealment and cover, key terrain, and enemy forces.

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2. **Concealment and Cover.** Concealment is protection from observation; cover is protection from the effects of fire. As a squad leader, you must determine the concealment and cover available to both friendly and enemy forces.

a. Concealment may be provided by terrain features and vegetation such as woods, underbrush, or cultivated vegetation, or by any other feature which denies observation. Concealment does not necessarily provide cover.

b. Cover may be provided by terrain features or manmade features. Areas that provide cover from direct fire may or may not protect against the effects of indirect fire; however, most terrain features that offer cover also offer concealment.

3. **Obstacles.**

a. An obstacle is any natural or artificial terrain feature which stops or impedes military movement.

b. Consideration of obstacles is influenced by the mission.

c. An obstacle may be an advantage or disadvantage and must be considered on its own merits, in view of a specific mission. For example, obstacles perpendicular to a direction of attack favor the defender by slowing or canalizing the attacker. Obstacles parallel to the direction of attack may assist in protecting a flank of the attacking force.

4. **Key Terrain.** A key terrain feature is any locality or area whose seizure or control affords a marked advantage to either force. The term "seizure" clearly implies physical occupation of the terrain by a force, whereas the term "control" may or may not include physical occupation. The selection of key terrain varies with the level of command, the type of unit, and the mission of the unit.

5. **Avenues of Approach.**

a. An avenue of approach is a route for a force of a particular size to reach an objective or key terrain. To be considered as an avenue of approach, a route must provide enough width for the deployment of the size force for which the avenue of approach is being considered.

b. The analysis of an avenue of approach is based on the following considerations:

(1) Observation and fire. (Favorable observation and fire for the force moving on the avenue of approach.)

(2) Concealment and cover. (Provides favorable conditions of concealment and cover -- this consideration is frequently in conflict with the preceding one.)

(3) Obstacles. (Avoids those which are perpendicular to the direction of advance and, whenever practical, takes advantage of those which are parallel to the direction of advance.)

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(4) Utilizes key terrain.

(5) Provides adequate maneuver space.

(6) Ease of movement.

c. The analysis of an avenue of approach is based solely on terrain considerations.

REFERENCES:

FM 30-5, Combat Intelligence, Oct 73 (app B, pages B-1 thru B-5)
TEC Lesson 935-071-1027-F, Analyze Weather and Terrain

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TASK NUMBER: 071-318-2206

SUPERVISE THE PREPARATION OF PRACTICE ROCKET LAUNCHER, M190, FOR FIRING

CONDITIONS:

Given any number of practice rocket launchers, M190; any number of subcaliber 35mm practice rockets, M73, for loading in the M190; and a suitable range for live firing.

STANDARDS:

1. Insure the practice rocket launcher, M190, is loaded with a subcaliber practice rocket, M73, IAW performance measure 2 below.

2. Insure the practice rocket, M73, is unloaded if not fired, IAW performance measure 3 below.

PERFORMANCE MEASURES:

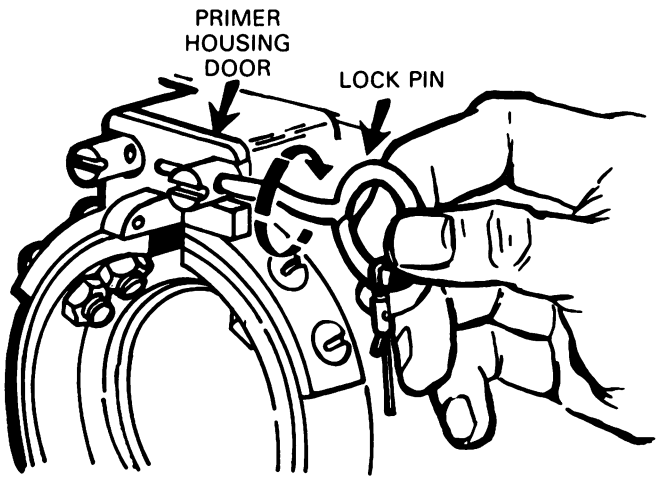
1. Launcher M190 loaded with subcaliber practice rocket, M73, forms the practice device for the 66mm LAW systems M72 series.

2. Loading Procedures:

a. Remove sling assembly if attached.

b. Twist and remove primer housing lock pin.

c. Remove primer housing door or, if new version, swing out of way of primer block entry.



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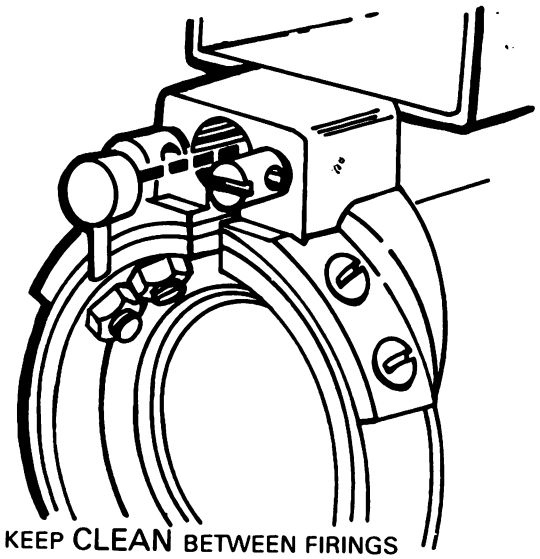
d. Remove fired primer block.

e. Inspect primer cavity.

f. Inspect subcaliber tube bore.

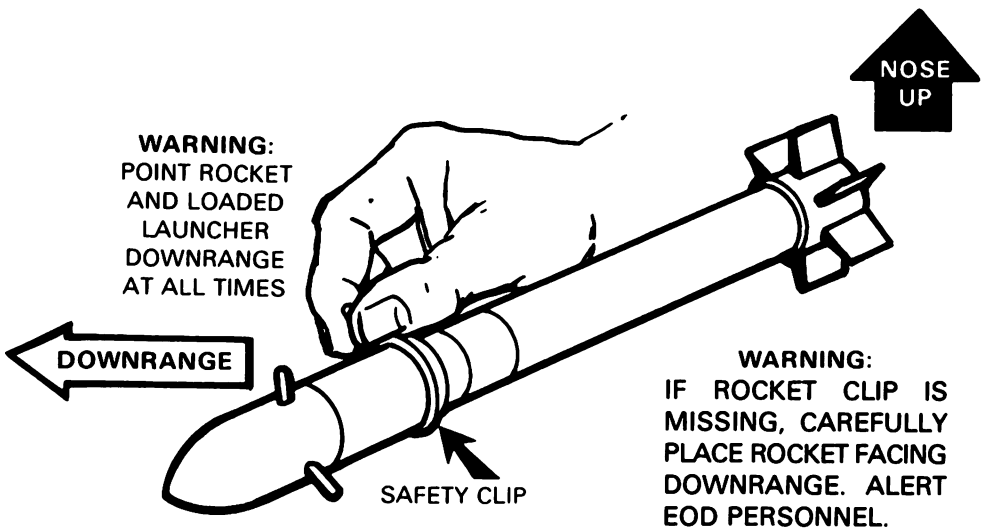
g. Swab bore with rag.

h. Blow out dust.



i. Open rocket container, carefully remove rocket.

j. Twist and remove safety clip from rocket; save clip in case rocket is not fired.


NOSE UP
WARNING: POINT ROCKET AND LOADED LAUNCHER DOWNRANGE AT ALL TIMES
DOWNRANGE
SAFETY CLIP
WARNING: IF ROCKET CLIP IS MISSING, CAREFULLY PLACE ROCKET FACING DOWNRANGE. ALERT EOD PERSONNEL.

WARNING: DO NOT STAND TO REAR OF LAUNCHER

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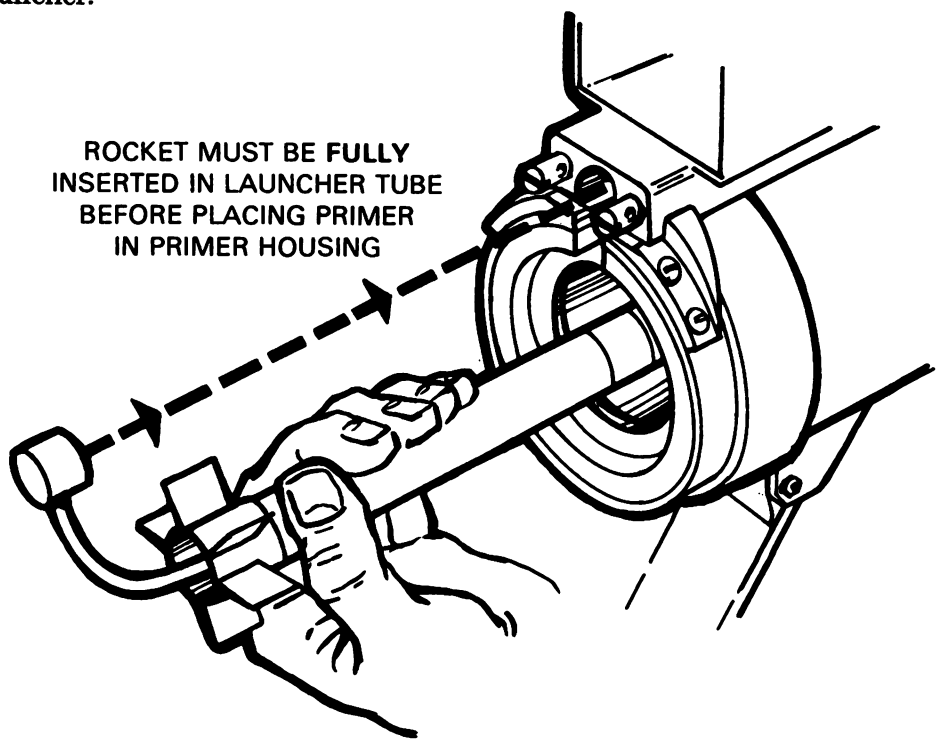
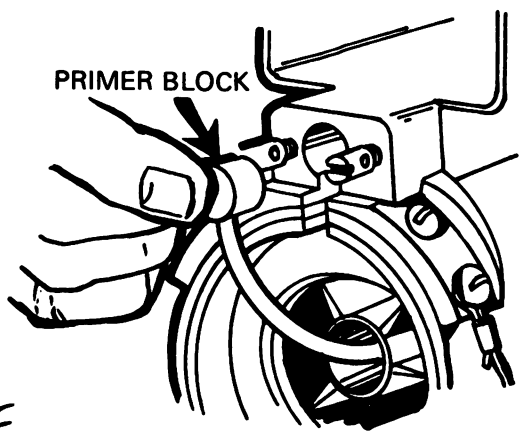
k. Load rocket. Line up primer on rocket with primer housing on launcher.

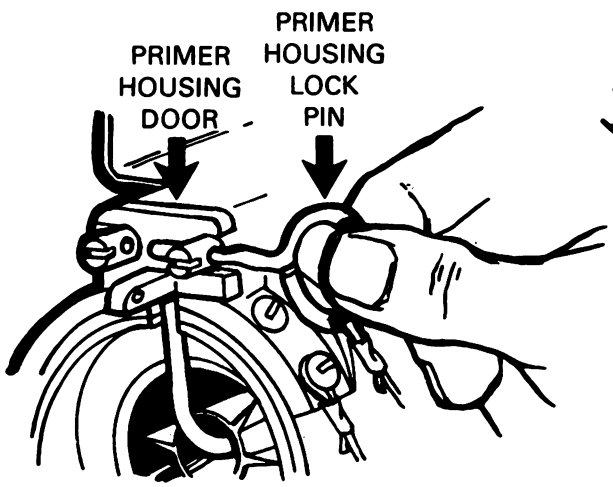


l. Guide primer block into housing.

m. Replace primer housing door.

n. Insert primer housing lock pin.





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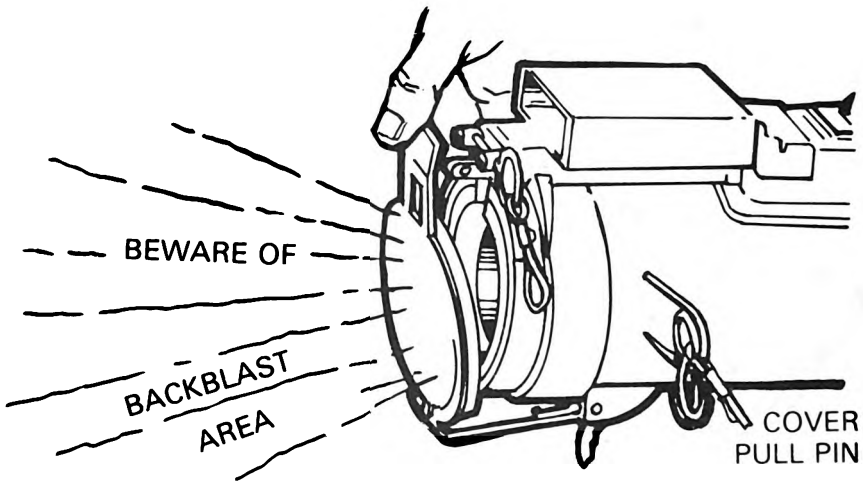
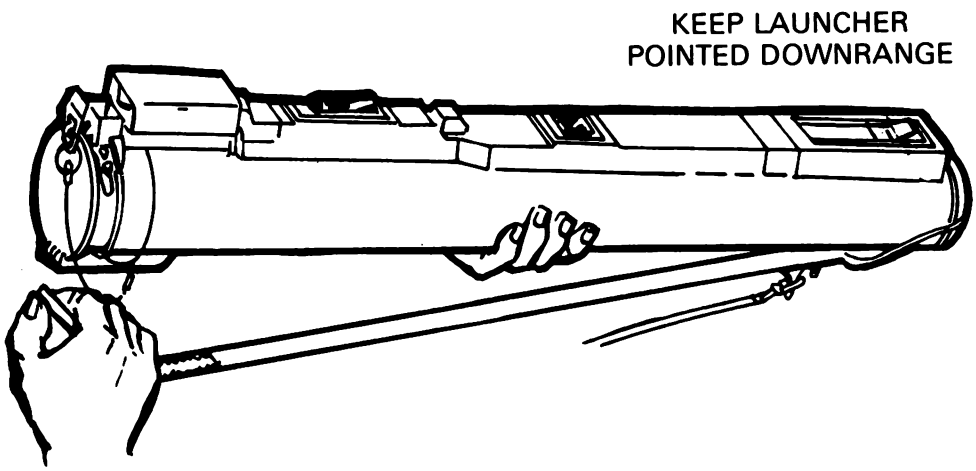
o. Replace cover.

p. Replace cover pull pin.

q. Replace sling assembly.

r. Launcher is now ready to be fired.





If loaded weapon is not used immediately, instructor should carefully place closed weapon pointing downrange.

Launcher tubes should be kept clean and the sling assembly replaced between firings. Launchers used and reused several times should be lightly cleaned with dry cloth.

WARNING: Weapon should be used, or unloaded, as soon as possible.

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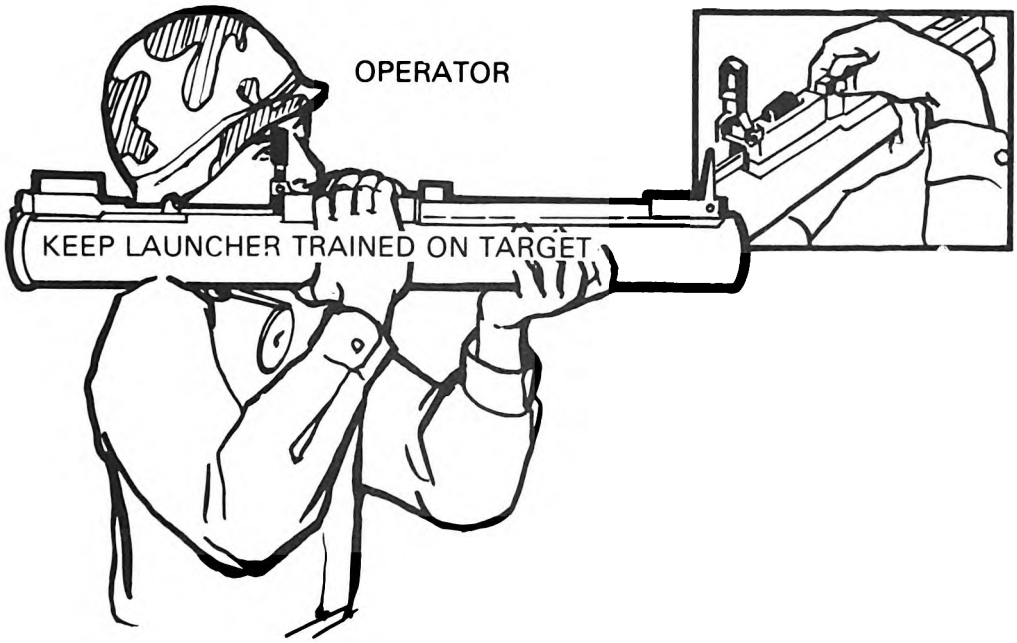
3. Unloading:

a. Return safety to SAFE.



b. Remove weapon from shoulder keeping it pointed down range.

c. Partially collapse launcher.

d. Remove primer housing lock-pin.

e. Open primer housing door.

f. Remove primer from housing.

g. Remove rocket.

h. Replace safety clip on the rocket.

i. Place rocket in original container.

REFERENCE:

TM 9-1340-203-20, Rocket Launcher M190 with subcaliber 35mm practice rocket M73, 30 July 1973 (pages 21 thru 33)

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TASK NUMBER: 071-316-2800

MANAGE TOW BATTERY PROGRAM

CONDITIONS:

As an antiarmor platoon sergeant, given TOW battery charger(s) (PP 4884 (XO-1)/T), TOW batteries, an AN/TAS-4 nightsight battery charger(s) (PP-7382/TAS) and batteries, and one generator.

STANDARDS:

A a minimum, insure that:

1. TOW batteries are recharged on a monthly basis and AN/TAS-4 night sight batteries ae recharged after 2 hours of use.

2. Battery accountability is maintained.

3. Defective battteries are identified and replaced.

4. Required preventive maintenance on both batteries and chargers is performed in accordance with applicable technical manuals (TMs).

PERFORMANCE MEASURES:

1. BATTERY PROGRAM MANAGEMENT. To effectively manage a unit battery program:

a. First, develop a means of identifying when batteries are due for recharging. To do this, design your own battery control log/chart showing the battery numbers, condition of the batteries, and the date upon which the batteries were last charged (figure 1).

BATTERY CONTROL				
BATTERY NO.	CONDITION/STATUS	CHARGED	DUE FOR RECHARGE	DATE TURNED IN
1	GOOD	16 MAR 79	16 APR 79	
2	DEFECTIVE	---------	---------	17 MAR 79

Figure 1. Example battery control log/chart.

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b. Maintaining a log/chart will insure that all batteries are recharged on a timely basis, assist in identifying batteries that require excessive charging (indicating that they might be defective), and assist you in maintaining battery accountability.

c. Label all batteries after recharging.

NOTE: Batteries normally have a plastic-coated plate attached with spaces provided in which the day, month, and year can be written with a grease pencil or water-soluble ink, or you may attach a strip of masking tape to the batteries and record date(day, month, and year).

d. Insure that personnel turn in TOW batteries for recharging every 30 days (whether the batteries were used or not).

e. Insure that personnel rotate the use of their batteries; a battery that is never charged or discharged may lose some of its ability to hold a full charge.

f. Batteries for the AN/TAS-4 nightsight (when issued) should be charged for a duration of 15 hours (± 45 minutes) for (approximately) 2 hours of use.

NOTE: When the battery monitor in the nightsight indicates that the charge is down to less than 10 minutes, the battery should be recharged.

2. PREVENTIVE MAINTANCE OF BATTERIES AND CHARGERS.

a. Insure batteries are kept clean.

b. Visually inspect for damage and wear.

c. Spotpaint as needed.

d. Insure that operator's and organizational maintenance is performed on the TOW battery charger (PP 4884 (XO-1)/T) in accordance with TM 9-6130-470-12 (chap 3, pages 3-1 through 3-3); and on the nightsight battery charger (PP 7382/TAS) in accordance with TM 11-5855-254-14 and P (chap 4, pages 12 through 18).

REFERENCES:

TM 9-6130-470-12, Operator's and Organizational Maintenance Manual for Battery Charger PP 4884 (XO-1)/T, Dec 75 (chap 3, pages 3-1 thru 3-3)
TM 11-5855-254-14 and P, Operator's Organizational, Direct Support, General Support Maintenance Manual Including Parts and Special Tools List for Battery Charger PP 7382/TAS, Jun 79 (chap 4, pages 12-18)
TM 9-2350-259-10, Operator's Manual for Combat Vehicle, Antitank, Improved TOW Vehicle, M901

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TASK NUMBER: 071-328-5306

ADVISE PERSONNEL PREPARING FOR SKILL QUALIFICATION TEST (SQT)

CONDITIONS:

Given required Soldier's Manuals and an appropriate SQT Notice for the individual's skill level and MOS; knowledge of where additional sources of training publications, material, and devices can be found; knowledge of the Enlisted Personnel Management System (EPMS); the available time necessary prior to the test period; and a requirement to advise soldiers under your supervision on how they should prepare themselves to take the SQT.

STANDARDS:

1. Insure that your subordinates know that Soldier's Manuals are the source document for the SQT.

2. Insure that your subordinates know that promotion to the next higher grade depends on how well they do on the SQT.

3. Insure that your subordinates know how to locate in the applicable Soldier's Manual(s) each task identified as a test item in his SQT Notice.

4. Insure that your subordinates understand what must be done to master the task as stated in the Soldier's Manual(s).

5. Provide time and assistance to those requiring it.

PERFORMANCE MEASURES:

1. **Enlisted Personnel Management System (EPMS).**

a. Under EPMS, enlisted soldiers have a complete career development program. It affects the training, evaluation, classification, assignment, and promotion of every enlisted soldier in the Army. This system is designed to provide the right number of qualified people to carry out the Army's missions. There are five skill levels that correspond to a soldier's progression in grade. A Soldier's Manual has been developed for each skill level identified below and it contains those critical tasks that the soldier must be able to perform in his MOS:

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GRADE	SKILL LEVEL
E1, 2, 3, & 4	SL 1
E5	SL 2
E6	SL 3
E7	SL 4
E8 & 9	SL 5

b. Under EPMS, the soldier is to be evaluated, classified, and promoted to the next higher grade. This is a significant change from the past when a soldier was first promoted, then classified into a higher skill level, and then evaluated. Now a soldier is evaluated by his EER(s)/SEER(s) and SQT, classified by his SQT results, and promoted based on the results of both. A soldier is not eligible to compete for promotion unless he has qualified for the next higher skill level.

2. **Study References (Training Literature, Materials, and Devices).**

a. Unless it is specified in the individual's SQT Notice, **the only training literature a soldier requires in order to take and pass his SQT are those Soldier's Manuals for his skill level.** A given SM gives only that minimal information required to accomplish the task. If he feels that he wants or needs more training than what is shown in the SM, he must go to other literature, material, or devices. The following is a detailed breakdown of what SMs a soldier will require in order to prepare for his SQT, depending on his paygrade and what SQT he will take.

PAYGRADE	SL	SM(s) REQUIRED	SQT HE TAKES
E1, 2, 3, & 4	1	1 & 2	2 (for E4)
E5	2	1, 2, & 3	3
E6	3	1, 2, 3, & 4	4
E7	4	1, 2, 3, 4, & 5	5

NOTE: Currently, there is no SQT for soldiers above SL 4.

b. If a soldier feels he needs more training than that given in a SM task:

(1) He can refer to the reference section of the task(s) in question for further information on training for that particular task.

(2) Remember, the SQT is based upon the SM. You must caution the soldier that references other than the SM may contain conflicting information. If this is the case, then the SM is always correct for SQT purposes.

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c. Training Materials and Devices. These are the major sources of additional training materials and devices:

(1) Training Extension Course (TEC Lessons).

(2) Unit or Individual Learning Centers (ILCs).

(3) Training Aid Support Office (TASO).

3. **The SQT Notice.**

a. Purpose. The SQT Notice is prepared to alert and inform the soldier on which tasks in his primary or secondary military occupation speciality (PMOS or SMOS) he will be tested.

b. Selection of Tasks. All tasks in the SQT Notice were taken from SMs for the MOS in which he will be tested. Task selection for testing SLs 1 through 5 is based upon the following three questions:

(1) How much does the performance of the task contribute to the successful operation or maintenance of critical combat systems?

(2) How much does the performance of the task contribute to the successful completion of critical activities and mission in the Army Training and Evaluation Program (ARTEP)?

(3) How much evidence is there that the task is often performed incorrectly?

c. Explanation of the SQT Components. The three components are:

(1) Skill component (SC). It is included in all SQTs, has tasks (scoreable units), uses a test booklet and answer sheet, and is currently given during a specified test period. A scoreable unit (a task) has between 1 and 10 questions.

(2) Hands-on component (HOC). The HOC is included in many SQTs. It requires a soldier to perform actual tasks in a job-like situation. It is also given during a specified test period.

(3) Performance certification component (PCC). The PCC is included in some SQTs, has 1 to 10 tasks, requires a soldier's supervisor to observe the soldier doing the tasks on the job, and can be given up to 9 months prior to the test period.

d. Explanation of SQT Tracking. The 11H SQTs are currently not tracked. The SQT Notice provides requirements for the individual and the supervisor and makes them equally responsible to insure that the correct track is taken. The supervisor is responsible for insuring that his subordinates are tested on the right equipment and bring the appropriate track selection notice, properly completed, to the test site(s). The following criteria should be used in determining the correct track for the soldier to take.

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(1) If a soldier has been working in his present duty position for less than 90 days as of the date he begins taking his SQT, the soldier and his supervisor will decide which track he will take. Soldiers serving in the track for less than 90 days can choose either track, depending upon his last duty position and how much training he has received in his present duty position. The supervisor should encourage the soldier to choose the track that will give him the best advantage. See figure 1 for track selection notices.

(2) If a soldier has been working in his present duty position for more than 90 days, as of the date he begins taking his SQT, then he must take the track for that duty position. See figure 1 for track selection notices.

e. The SQT Notice also tells you the task number, task title, test unit number, how many questions there are to the unit, and how many you must answer to score a GO for that unit. The following is the listing of the number of questions a soldier must answer correctly to score a GO for a unit:

Number of Questions	Number Correct to Score a GO
1	1
2	2
3	3
4	3
5	4
6	5
7	5
8	6
9	7
10	8

The SQT Notice also has a sample question for each scorabel unit unless there is only one question to that unit. (See figure 1.) Finally it tells you where in your SMs to study in order to pass that scoreable unit.

★ 4. **The Skill Qualification Test (SQT).**

a. General Information. The purpose of the skill qualification test is to improve the combat effectiveness of Army units by getting soldiers to do their jobs better.

(1) Each soldier should receive his SQT Notice 60 to 90 days prior to the date he is to begin taking his SQT.

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Task Number	Task Title
(1) 081-831-1008	Apply First Aid Measures for Burns

Unit 1 consists of seven questions, five of which you must answer correctly to score a GO. You must know what actions you should take or not take to apply first aid measures for burns. You must also know how to administer the salt packet to a burn casualty. Refer to page 2-I-A-6.1 in your SM.

SAMPLE

General Situation. You are in a defensive position. During an enemy attack, the soldier in the position with you was burned.

QUESTION. If the size of the burn is less than one square foot, what action should you take?

A. Give the casualty the contents of the salt packet dissolved in a canteen full of cool water.

B. Have the casualty drink the water from his canteen.

C. Apply the contents of the salt packet to the burn and cover it with a sterile dressing.

Figure 1. Sample SQT Question

(2) PCC tasks are tasks that are not suited for either the SC or HOC. Certifiable tasks are those whose length or complexity make them unsuitable for HOC testing and currently include such tasks as individual weapons qualification, and physical conditioning evaluation.

(3) A soldier is tested by SQT-2 on the first regularly scheduled test after his 12th month of service. Presently, personnel below paygrade E4 will not be scheduled for testing.

(4) Secondary MOS (SMOS) testing by SQT is conducted only once during a soldier's career and will occur during the second regularly administered SQT for the MOS after the soldier attains SL 3 in his PMOS.

b. Scoring. The soldier's score on his SQT is used to verify his current skill level or to qualify him for promotion to the next higher skill level.

☆ The information contained in paragraph 4 is subject to changes.

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(1) If a soldier achieves the announced verification score on his SQT, he will verify his MOS and skill level of proficiency. The soldier may then choose to retake the test the next year in order to improve his score and qualify for the next higher skill level.

(2) If a soldier achieves the announced qualification score, he will qualify for the next higher skill level and he will be eligible to compete for promotion to the next higher grade.

(3) If a soldier fails to attain the verification score, he is considered unqualified at his current skill level and will be required to take the test again the following year. If he fails again, he becomes subject to reclassification.

(4) Verification and qualification scores will be established by TRADOC.

c. Year-round Training and Testing. Training for the SQTs should not be a crash effort triggered by receipt of the SQT Notice. This may leave soldiers at low levels of proficiency for many months. Training should not be scheduled around SQT Notices. This is not the answer if you and your unit are serious about maintaining a ready unit at all times and being prepared for your annual ARTEP. It is suggested that a series of small SQTs, or "mini SQTs," be conducted periodically during the year by you, your team leaders, or other individuals in your chain of command.

REFERENCES:

Applicable Soldier's Manuals
Applicable DA Pam in the SQT Notice Series
DA Pam 350- -SQT- A Guide for Leaders

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TASK NUMBER: 121-030-3501

PREPARE THE INDORSER'S SECTION OF AN ENLISTED EVALUATION REPORT (EER)

CONDITIONS:

Given DA Pamphlet 623-1, a DA form 2166-5 (with the rater's section completely filled in) and a No. 2 lead pencil.

STANDARDS:

You will, as outlined in DA Pam 623-1 (Preparation of Enlisted Evaluation Report):

1. Review parts I, II, and III of DA Form 2166-5; identify and correct all discrepancies.

2. Complete parts II, III, and IV (indorser's section) of DA Form 2166-5.

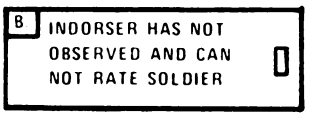
PERFORMANCE MEASURES:

1. **Parts I through VII.** Parts I and VII of the report will be completed by the Military Personnel Officer (MILPO). Review the rater's section of parts I (MILPO), II, and III to insure they are correct and complete. Complete the indorser's section of parts II, III, and IV. Part V will be completed by the individual being rated.

2. **Part II.**

a. **Block A.** Actual duties performed by the rated soldier will be filled in by the rater.

b. **Block B.** This block is applicable only to the indorser; self-explanatory.



c. **Block C.** Two selections are possible. Check the appropriate box to indicate frequency of contact and, if applicable, also check "reports and records." The indorser will fill in the line following "I" only.

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d. **Block D.** Mark the "yes" or "no" block as appropriate. A "no" response here requires explanation in Block J.

D	SOLDIER SUPPORTS THE ARMY'S EQUAL OPPORTUNITY PROGRAM	YES	NO
		R ☐	☐
		I ☐	☐

e. **Block E.** Duty Performance Traits. Rate the soldier carefully on each of the ten performance traits by marking the appropriate box for each trait. Mark ratings in pencil (No. 2 lead) on the basis of the given rating scale. Enter the score for each trait in black ink in the score box at the right hand column under "I". Total these scores and enter in the totals box at the bottom of the column, and in the appropriate location in Block H. Marking procedures are the same for blocks F and G as in Block E, and the appropriate boxes in Block H. Any rating of **needs improvement** will be cross referenced and addressed in Block J (indorser's section).

E	DUTY PERFORMANCE TRAITS	RANKS WITH VERY BEST	SUPERIOR TO MOST	EXCEEDS OR MEETS DUTY REQUIREMENTS		NEEDS IMPROVEMENTS		SCORE	
						Some	Much		
		5	4	3	2	1	0	R	I
1.	Is well informed on all phases of assigned duties. (Scope of knowledge about duties)	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	3	3
2.	Carries out orders without constant supervision. (Dependability in performing without supervision)	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	3	3
3.	Shows interest and enthusiasm for duties. (Attitude toward duties)	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	3	3
4.	Demonstrates qualities of leadership. (Exerts positive influence on others)	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	3	3
5.	Seeks out opportunities for self-improvement. (Effort directed toward realization of potential)	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	3	3
6.	Displays ability to initiate action without direction from others. (Aggressive pursuit of methods to improve duty performance)	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	1	1
7.	Is successful in working with others. (Ability to work in harmony with others)	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	3	3
8.	Personal behavior sets a good example for others. (High standards of personal conduct)	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	3	3
9.	Takes pride in dress and appearance. (Neat and military in bearing)	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	3	3
10.	Is physically fit, as required, for MOS/grade during combat. (Physical condition)	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	R ☐ I ☐	4	4
							TOTALS	29	29

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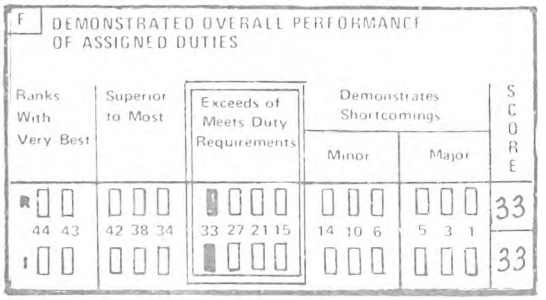
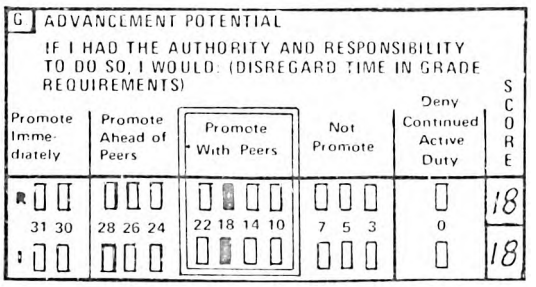
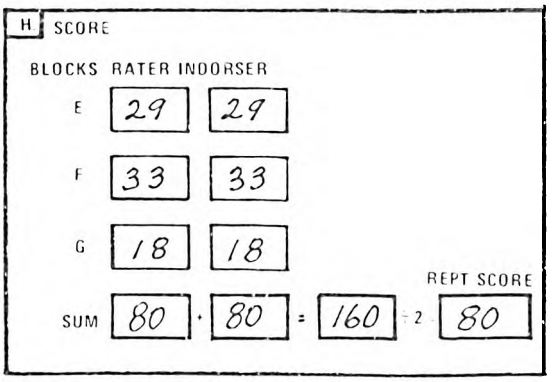
f. **Block F.** Demonstrated Overall Performance of Assigned Duties. In this section, rate the soldier's strengths and weaknesses, using overall performance. Any rating of **Ranks with Very Best** or **Demonstrates Major Shortcomings** will be cross-referenced and addressed in Block J (indorser's section).



g. **Block G.** Advancement Potential. Rate the soldier on ability to perform in the next higher grade by considering total capacity in comparison with other individuals of the same grade and length of service. Any rating of **Promote Immediately, Not Promote** or **Deny Continued Active Duty** will be cross-referenced and addressed in Block J (indorser's section).



h. **Block H.** Scores. You enter the scores from the appropriate boxes from Blocks E, F, and G and total them. The sum of the scores are added up by the indorser, divided by 2, and the result entered in the block titled REPT SCORE.



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i. **Block I.** Career Development. Recommendation for logical career development, such as advanced schooling and special assignments are required here.

I	CAREER DEVELOPMENT (RECOMMENDATIONS ON SCHOOLING AND ASSIGNMENTS)
	Recommend DA NCO Development Course for individual.

j. **Block J.** Comments. Comments are required in this block regardless of score. Comments must be either typed or neatly printed.

J	1. COMMENTS ARE MANDATORY TO JUSTIFY RATINGS IN PART II AS FOLLOWS: a. BLOCK E SCORE BELOW 10 OR OVER 40, BLOCK F SCORE BELOW 6 OR OVER 42, BLOCK G SCORE BELOW 10 OR OVER 20, OR BLOCK D IF SOLDIER DOES NOT SUPPORT ARMY'S EQUAL OPPORTUNITY PROGRAM. b. INDORSER WHO CHECKS BLOCK II B.
RATER	COMMENTS MANDATORY
INDORSER	COMMENTS MANDATORY

3. **Parts III, IV, and V.** Parts III and V will be reviewed by the indorser for possible discrepancies. Part IV must be typed or printed in black ink, except for signature, which will be in black ink.

PART III RATER AUTHENTICATION			
A ORGANIZATION AND DUTY ASSIGNMENT Co C, 1st Bn, 26th Inf APO NY 09039 Sqd Ldr	B NAME AND GRADE TIMOTHY E. KREBS, E6	C DATE 5 Jan 76
	D SIGNATURE Timothy E. Krebs	
PART IV INDORSER AUTHENTICATION		
A ORGANIZATION AND DUTY ASSIGNMENT Co C, 1st Bn, 26th Inf APO NY 09039 Plt Ldr	B NAME AND GRADE LARRY A. WILDMAN, 01	C DATE 5 Jan 76
	D SIGNATURE Larry A. Wildman	
PART V SOLDIER AUTHENTICATION		
A I HAVE SEEN A COPY OF THIS REPORT COMPLETE THROUGH ACTION BY THE INDORSER. I HAVE BEEN COUNSELED CONCERNING THE REPORT.	B NAME AND GRADE ROGER W. CASALENGO, E4	C DATE 6 Jan 76
	D SIGNATURE Roger W Casalengo	

4. **Counseling.** Prior to obtaining the rated soldier's signature on the evaluation form, the indorser will verify that the rater has counseled the soldier regarding the evaluation report. The indorser will further counsel the soldier and if the report is adverse, the indorser will advise the soldier of the nature of the report and inform him that the MILPO will provide guidance for submission of appeals.

5. **See figure 1a and 1b** for a completed example of an Enlisted Evaluation Report, DA Form 2166-5.

REFERENCE:

DA Pamphlet 623-1, Preparation of Enlisted Evaluation Reports, May 75 (pages 2-6)

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ENLISTED EVALUATION REPORT (AR 600-200)

For preparation, see DA Pamphlet 623-1.

C. SSN: 0 0 0 0 0 0 0 0 0

PART I PERSONAL DATA

A. GRADE (ABBR) NAME (LAST) (FIRST) (MI) SSN: E4 CASALENGO, ROGER 0000 -00- 000

B. TYPE OF REPORT: INIT ANL CR SP OTHER SPECIFY

D. ORGANIZATION AND STATION: Co C, 1st Bn, 26th Inf, APO NY 09039

E. PMOSC: 11B10

F. DMOSC: 11B10

G. SMOSC: 95B10

H. PERIOD OF REPORT: BEGIN MO: JAN; BEGIN YR: 74 76 77 78 79 80 81 82 83 84 85

END MO: DEC; END YR: 74 76 77 78 79 80 81 82 83 84 85

I. NONRATED PERIOD: NO. OF MONTHS ____ REASON CODES ____

J. DUTY POSITION TITLE: Rifleman

AUTH PAY GR E-4

PART II RATINGS

A. BRIEF DESCRIPTION OF DUTIES

Soldier performs duty as rifleman in a mechanized rifle platoon. Disperses small arms fire toward enemy when required to do so.

B. INDORSER HAS NOT OBSERVED AND CAN NOT RATE SOLDIER: ☐

C. REPORT BASED ON: DAILY CONTACT (R ■, I ☐); FREQ OBSN (R ☐, I ■); INFREQ OBSN (R ☐, I ☐); REPT & REC (R ■, I ☐)

D. SOLDIER SUPPORTS THE ARMY'S EQUAL OPPORTUNITY PROGRAM: YES (R ■, I ☐) NO (R ☐, I ☐)

E. DUTY PERFORMANCE TRAITS

		RANKS WITH VERY BEST 5	SUPERIOR TO MOST 4	EXCEEDS OR MEETS DUTY REQUIREMENTS 3	2	NEEDS IMPROVEMENTS Some 1	Much 0	SCORE R	I
1. Is well informed on all phases of assigned duties. (Scope of knowledge about duties)	R	☐	☐	■	☐	☐	☐	3	3
	I	☐	☐	☐	☐	☐	☐		
2. Carries out orders without constant supervision. (Dependability in performing without supervision)	R	☐	☐	■	☐	☐	☐	3	3
	I	☐	☐	☐	☐	☐	☐		
3. Shows interest and enthusiasm for duties. (Attitude toward duties)	R	☐	☐	■	☐	☐	☐	3	3
	I	☐	☐	☐	☐	☐	☐		
4. Demonstrates qualities of leadership. (Exerts positive influence on others)	R	☐	☐	■	☐	☐	☐	3	3
	I	☐	☐	☐	☐	☐	☐		
5. Seeks out opportunities for self-improvement. (Effort directed toward realization of potential)	R	☐	☐	■	☐	☐	☐	3	3
	I	☐	☐	☐	☐	☐	☐		
6. Displays ability to initiate action without direction from others. (Aggressive pursuit of methods to improve duty performance)	R	☐	☐	☐	☐	■	☐	1	1
	I	☐	☐	☐	☐	☐	☐		
7. Is successful in working with others. (Ability to work in harmony with others)	R	☐	☐	■	☐	☐	☐	3	3
	I	☐	☐	☐	☐	☐	☐		
8. Personal behavior sets a good example for others. (High standards of personal conduct)	R	☐	☐	■	☐	☐	☐	3	3
	I	☐	☐	☐	☐	☐	☐		
9. Takes pride in dress and appearance. (Neat and military in bearing)	R	☐	☐	■	☐	☐	☐	3	3
	I	☐	☐	☐	☐	☐	☐		
10. Is physically fit, as required, for MOS/grade during combat. (Physical condition)	R	☐	■	☐	☐	☐	☐	4	4
	I	☐	☐	☐	☐	☐	☐		
							TOTALS	29	29

F. DEMONSTRATED OVERALL PERFORMANCE OF ASSIGNED DUTIES

	Ranks With Very Best	Superior to Most	Exceeds or Meets Duty Requirements	Demonstrates Shortcomings: Minor	Demonstrates Shortcomings: Major	SCORE
R	☐☐ 44 43	☐☐☐ 42 38 34	■☐☐☐ 33 27 21 15	☐☐☐ 14 10 6	☐☐☐ 5 3 1	33
I	☐☐	☐☐☐	■☐☐☐	☐☐☐	☐☐☐	33

G. ADVANCEMENT POTENTIAL

IF I HAD THE AUTHORITY AND RESPONSIBILITY TO DO SO, I WOULD: (DISREGARD TIME IN GRADE REQUIREMENTS)

	Promote Immediately	Promote Ahead of Peers	Promote With Peers	Not Promote	Deny Continued Active Duty	SCORE
R	☐☐ 31 30	☐☐☐ 28 26 24	☐■☐☐ 22 18 14 10	☐☐☐ 7 5 3	☐ 0	18
I	☐☐	☐☐☐	☐■☐☐	☐☐☐	☐	18

H. SCORE

BLOCKS	RATER	INDORSER
E	29	29
F	33	33
G	18	18
SUM	80 + 80 = 160 ÷ 2 =	REPT SCORE 80

DA FORM 2166-5 1 July 75

Figure 1a.

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RATED SOLDIER'S LAST NAME AND SSN CASALENGO 000-00-0000

PART II CONTINUED

I CAREER DEVELOPMENT (RECOMMENDATIONS ON SCHOOLING AND ASSIGNMENTS)

Recommend DA NCO Development Course for individual.

J
1. COMMENTS ARE MANDATORY TO JUSTIFY RATINGS IN PART II AS FOLLOWS:
   a. BLOCK E SCORE BELOW 10 OR OVER 40, BLOCK F SCORE BELOW 6 OR OVER 42, BLOCK G SCORE BELOW 10 OR OVER 20, OR BLOCK D IF SOLDIER DOES NOT SUPPORT ARMY'S EQUAL OPPORTUNITY PROGRAM.
   b. INDORSER WHO CHECKS BLOCK II B.
2. REMARKS OTHERWISE OPTIONAL.

RATER

COMMENTS MANDATORY

INDORSER

COMMENTS MANDATORY

PART III RATER AUTHENTICATION

A ORGANIZATION AND DUTY ASSIGNMENT	B NAME AND GRADE	C DATE
Co C, 1st Bn, 26th Inf APO NY 09039 Sqd Ldr	TIMOTHY E. KREBS, E6	5 Jan 76
	D SIGNATURE Timothy E. Krebs	

PART IV INDORSER AUTHENTICATION

A ORGANIZATION AND DUTY ASSIGNMENT	B NAME AND GRADE	C DATE
Co C, 1st Bn, 26th Inf APO NY 09039 Plt Ldr	LARRY A. WILDMAN, O1	5 Jan 76
	D SIGNATURE Larry A. Wildman	

PART V SOLDIER AUTHENTICATION

A I HAVE SEEN A COPY OF THIS REPORT COMPLETE THROUGH ACTION BY THE INDORSER. I HAVE BEEN COUNSELED CONCERNING THE REPORT.	B NAME AND GRADE	C DATE
	ROGER W. CASALENGO, E4	6 Jan 76
	D SIGNATURE Roger W. Casalengo	

PART VI REVIEWER AUTHENTICATION

A SOLDIER WAS RATED BY CORRECT RATER AND INDORSER. NO FURTHER ACTION REQUIRED MY REVIEW RESULTS IN ACTION INDICATED BY INCLOSURES.

B ORGANIZATION AND DUTY ASSIGNMENT	C NAME AND GRADE	D DATE
Co C, 1st Bn, 26th Inf APO NY 09039 Cdr	WILLIAM C. THOMAS, O3	7 Jan 76
	E SIGNATURE William C. Thomas	

PART VII MILPO CERTIFICATION

A DATE REPORT ENTERED ON DA FM 2-1:	C	D
B SOLDIER'S COPY: GIVE TO SOLDIER ☐ FORWARDED TO SOLDIER ☐ MAILED TO SOLDIER ☐ CERTIFIED MAIL NO _____	MILPO SIGNATURE	UIC

Figure 1b.

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TASK NUMBER: 121-030-4501

PREPARE THE RATER'S SECTION OF A SENIOR ENLISTED EVALUATION REPORT (SEER)

CONDITIONS:

Given DA Pamphlet 623-1, one blank DA Form 2166-5A, and a No. 2 lead pencil.

STANDARDS:

Complete parts II and III of the Senior Enlisted Evaluation Report, DA Form 2166-5A, as outlined in DA Pamphlet 623-1 (Preparation of Enlisted Evaluation Reports).

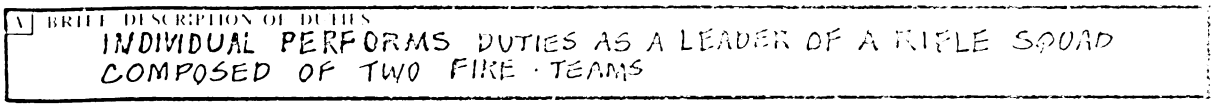
PERFORMANCE MEASURES:

1. **Parts I through VII.** Parts I and VII of the report will be completed by the Military Personnel Officer (MILPO). Parts II and III are completed by you (the rater) and the indorser. Part IV is completed by the indorser and part V is completed by the individual being rated. Part VI is completed by the reviewer only after parts I through V have been completed.

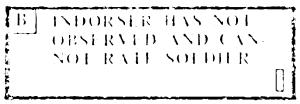
NOTE: Part I should be checked by the rater and rated individual for possible discrepancies.

2. **Part II.**

a. **Block A.** You will enter the actual duties performed by the rated soldier including additional duties.



b. **Block B.** This block is not applicable to the rater. Will be completed by the indorser.



c. **Block C.** Two selections are possible. Check the appropriate box to indicate frequency of contact, and, if applicable, also check "reports and records."

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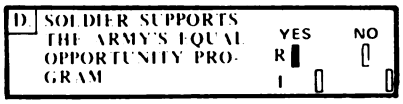
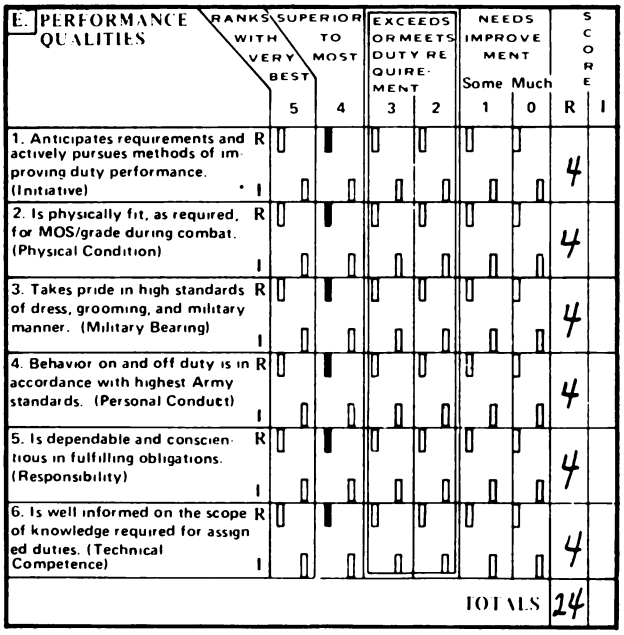
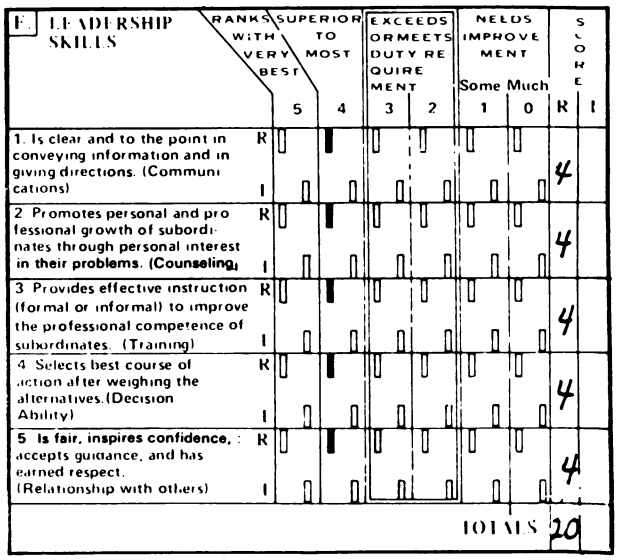
d. **Block D.** Mark the "yes" or "no" block as appropriate. A "no" response here requires explanation in Block K.




E. PERFORMANCE QUALITIES
RANKS WITH VERY BEST
SUPERIOR TO MOST
EXCEEDS OR MEETS DUTY REQUIREMENT
NEEDS IMPROVEMENT
Some Much
SCORE
5 4 3 2 1 0 R I
1. Anticipates requirements and actively pursues methods of improving duty performance. (Initiative) R I 4
2. Is physically fit, as required, for MOS/grade during combat. (Physical Condition) R I 4
3. Takes pride in high standards of dress, grooming, and military manner. (Military Bearing) R I 4
4. Behavior on and off duty is in accordance with highest Army standards. (Personal Conduct) R I 4
5. Is dependable and conscientious in fulfilling obligations. (Responsibility) R I 4
6. Is well informed on the scope of knowledge required for assigned duties. (Technical Competence) R I 4
TOTALS 24

e. **Block E.** Performance Qualities. Rate the individual carefully on each of the six performance qualities by marking the appropriate box for each quality. Mark ratings in soft pencil on the basis of the given rating scale. Enter the score for each quality in black ink in the score box at the righthand column. Total these scores and enter in the totals box at the bottom of the righthand column, and in the appropriate location in Block I. The same marking procedure will be used for Blocks, F, G, and H, using the appropriate boxes in Block I. Any rating of **Needs Improvement** will be cross-referenced and addressed in Block K.

f. **Block F.** Leadership Skills. These skills are critical to senior enlisted soldiers. The soldier's performance as a leader depends on mastering them. Any rating of **Needs Improvement** will be cross-referenced and addressed in Block K.


F. LEADERSHIP SKILLS
RANKS WITH VERY BEST
SUPERIOR TO MOST
EXCEEDS OR MEETS DUTY REQUIREMENT
NEEDS IMPROVEMENT
Some Much
SCORE
5 4 3 2 1 0 R I
1. Is clear and to the point in conveying information and in giving directions. (Communications) R I 4
2 Promotes personal and professional growth of subordinates through personal interest in their problems. (Counseling) R I 4
3 Provides effective instruction (formal or informal) to improve the professional competence of subordinates. (Training) R I 4
4 Selects best course of action after weighing the alternatives. (Decision Ability) R I 4
5 Is fair, inspires confidence, accepts guidance, and has earned respect. (Relationship with others) R I 4
TOTALS 20

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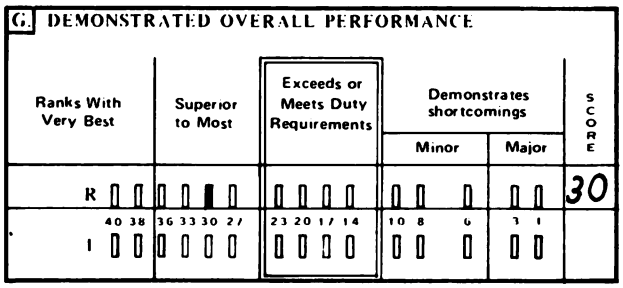
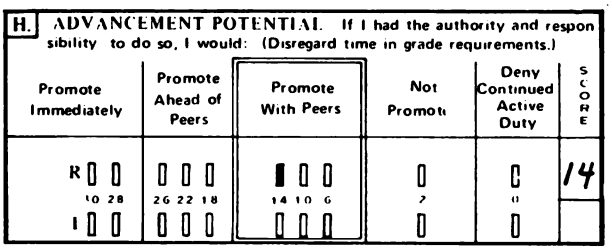
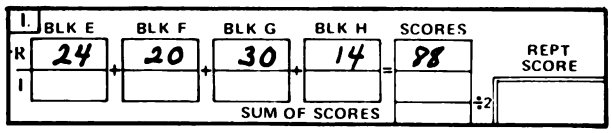
g. **Block G.** Demonstrated Overall Performance. In this section, consider all of the rated soldier's strengths and weaknesses, using the yardstick of overall performance. Any ratings of **Ranks with Very Best** or **Demonstrates Major Shortcomings** will be cross-referenced and addressed in Block K.



h. **Block H.** Advancement Potential. Rate the soldier on ability to perform in the next higher grade by considering total capacity in comparison with other individuals of the same grade and length of service. Any rating of **Promote Immediately, Not Promote,** or **Deny Continued Active duty** will be cross-referenced and addressed in Block K.



i. **Block I.** Scores. The rater enters the scores from the appropriate boxes from Blocks E, F, G, and H and totals them. This total score from the rater's section cannot exceed 125 points. If there is no indorser, the rater's total will be the report score.



j. **Block J.** Career Development. Recommendation for logical career development, such as advanced schooling and special assignments, are required here. If the soldier has potential to be a First Sergeant or Command Sergeant Major, check the appropriate block according to grade.

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RATED SOLDIER'S LAST NAME AND SSN	RENN	000-00-000
PART II CONTINUED		
J CAREER DEVELOPMENT (RECOMMENDATIONS ON SCHOOLING AND ASSIGNMENTS)	RECOMMENDED FOR (SM (E-5 & E-6))	(SG (E-7))
	R ☐	R ■
	I ☐	I ☐

k. **Block K.** Comments. Comments will be made in this block regardless of the score. Comments must be either typed or neatly printed.

K 1. COMMENTS ARE MANDATORY TO JUSTIFY RATINGS IN PART II AS FOLLOWS
a. BLOCK E SCORE BELOW 6 OR OVER 24, BLOCK F SCORE BELOW 5 OR OVER 20, BLOCK G SCORE BELOW 6 OR OVER 36, BLOCK H SCORE BELOW 6 OR OVER 13, OR BLOCK D IF SOLDIER DOES NOT SUPPORT ARMY'S EQUAL OPPORTUNITY PROGRAM.
b. INDORSER WHO CHECKS BLOCK H.
2. REMARKS OTHERWISE OPTIONAL.

RATER

COMMENTS MANDATORY

INDORSER

COMMENTS MANDATORY

3. **Part III.** This entry, except for signature, must be typed or printed in black ink. Use black ink for signature.

PART III RATER AUTHENTICATION			
A ORGANIZATION AND DUTY ASSIGNMENT		B NAME AND GRADE	C DATE
Co C, 1ST BN, 26th INF APO NY 09039	PLT SGT	WILLIAM COLEMAN E-7	5 JAN 76
		D SIGNATURE William Coleman	

4. **Counseling.** After signing the report, you, the rater, should discuss the report with the rated soldier and counsel him concerning the report. After counseling, you will forward the report to the indorser.

5. **See figure 1a and 1b** for a completed example (rater's section only) of a Senior Enlisted Evaluation Report, DA Form 2166-5A.

REFERENCE:

DA Pamphlet 623-1, Preparation of Enlisted Evaluation Reports, May 75 (pages 2-4)

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SENIOR ENLISTED EVALUATION REPORT (AR 600-200)

For preparation, see DA Pamphlet 623-1.

C. SSN

PART I PERSONAL DATA

A. GRADE (ABBR) NAME (LAST) (FIRST) (MI) SSN

E-6 RENN, ALFRED N. 000-00-0000

B. TYPE OF REPORT: INIT [ ] ANL [X] CR [ ] SP [ ] OTHER [ ] SPECIFY

D. ORGANIZATION AND STATION

Co C, 1ST BN, 26th INF
APO NY 09039

E. PMOSC: 11B30

F. DMOSC: 11B30

G. SMOSC: 95B30

H. PERIOD OF REPORT

BEGIN MO: [ ] YR: [ ]

END MO: [ ] YR: [ ]

I. NONRATED PERIOD

NO. OF MONTHS _____

REASON CODES _____

J. DUTY POSITION TITLE

SQUAD LEADER

AUTH PAY GR

PART II. RATINGS

A. BRIEF DESCRIPTION OF DUTIES

Individual performs duties as a leader of a rifle squad composed of two fire support teams

B. INDORSER HAS NOT OBSERVED AND CANNOT RATE SOLDIER [ ]

C. REPORT BASED ON: DAILY CONTACT R [X] I [ ] FREQ OBSN [ ] INFREQ OBSN [ ] REPT & REC [ ]

D. SOLDIER SUPPORTS THE ARMY'S EQUAL OPPORTUNITY PROGRAM: YES R [X] I [ ] NO [ ]

E. PERFORMANCE QUALITIES	RANKS WITH VERY BEST 5	SUPERIOR TO MOST 4	EXCEEDS OR MEETS DUTY REQUIREMENT 3	2	NEEDS IMPROVEMENT Some 1	Much 0	SCORE R	I
1. Anticipates requirements and actively pursues methods of improving duty performance. (Initiative)							4	
2. Is physically fit, as required, for MOS/grade during combat. (Physical Condition)							4	
3. Takes pride in high standards of dress, grooming, and military manner. (Military Bearing)							4	
4. Behavior on and off duty is in accordance with highest Army standards. (Personal Conduct)							4	
5. Is dependable and conscientious in fulfilling obligations. (Responsibility)							4	
6. Is well informed on the scope of knowledge required for assigned duties. (Technical Competence)							4	
TOTALS							24	

F. LEADERSHIP SKILLS	RANKS WITH VERY BEST 5	SUPERIOR TO MOST 4	EXCEEDS OR MEETS DUTY REQUIREMENT 3	2	NEEDS IMPROVEMENT Some 1	Much 0	SCORE R	I
1. Is clear and to the point in conveying information and in giving directions. (Communications)							4	
2. Promotes personal and professional growth of subordinates through personal interest in their problems. (Counseling)							4	
3. Provides effective instruction (formal or informal) to improve the professional competence of subordinates. (Training)							4	
4. Selects best course of action after weighing the alternatives. (Decision Ability)							4	
5. Is fair, inspires confidence, accepts guidance, and has earned respect. (Relationship with others)							4	
TOTALS							20	

G. DEMONSTRATED OVERALL PERFORMANCE

	Ranks With Very Best	Superior to Most	Exceeds or Meets Duty Requirements	Demonstrates shortcomings: Minor	Major	SCORE
R	[ ]	[X]	[ ]	[ ]	[ ]	30
I	[ ] (40 38)	[ ] (36 34 32 30)	[ ] (28 26 24 22)	[ ] (10 8 6)	[ ] (4 2)	

H. ADVANCEMENT POTENTIAL If I had the authority and responsibility to do so, I would: (Disregard time in grade requirements.)

	Promote Immediately	Promote Ahead of Peers	Promote With Peers	Not Promote	Deny Continued Active Duty	SCORE
R	[ ] (30 28)	[ ] (26 24 22 18)	[X] (14 10 6)	[ ] (2)	[ ] (0)	14
I	[ ]	[ ]	[ ]	[ ]	[ ]	

I.

	BLK E	BLK F	BLK G	BLK H	SCORES
R	24	20	30	14	88
I					

SUM OF SCORES ÷2 = REPT SCORE

DA FORM 2166-5A 1 July 75

Figure 1a.

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RATED SOLDIER'S LAST NAME AND SSN: RENN 000-00-000

PART II CONTINUED

J. CAREER DEVELOPMENT (RECOMMENDATIONS ON SCHOOLING AND ASSIGNMENTS)

RECOMMENDED FOR	CSM (E-8 & E-9)	SG (E-7)
R	☐	■
I	☐	☐

K. 1. COMMENTS ARE MANDATORY TO JUSTIFY RATINGS IN PART II AS FOLLOWS:
a. BLOCK E SCORE BELOW 6 OR OVER 24, BLOCK F SCORE BELOW 5 OR OVER 20, BLOCK G SCORE BELOW 6 OR OVER 36, BLOCK H SCORE BELOW 6 OR OVER 14, OR BLOCK D IF SOLDIER DOES NOT SUPPORT ARMY'S EQUAL OPPORTUNITY PROGRAM.
b. INDORSER WHO CHECKS BLOCK II B.
2. REMARKS OTHERWISE OPTIONAL.

RATER

COMMENTS MANDATORY

INDORSER

COMMENTS MANDATORY

PART III RATER AUTHENTICATION

A. ORGANIZATION AND DUTY ASSIGNMENT	B. NAME AND GRADE	C. DATE
Co C, 1ST BN, 26th INF PLT SGT APO NY 09039	WILLIAM COLEMAN E7	5JAN76
	D. SIGNATURE: William Coleman	

PART IV INDORSER AUTHENTICATION

A. ORGANIZATION AND DUTY ASSIGNMENT	B. NAME AND GRADE	C. DATE
	D. SIGNATURE	

PART V SOLDIER AUTHENTICATION

A. I HAVE SEEN A COPY OF THIS REPORT COMPLETE THROUGH ACTION BY THE INDORSER. I HAVE BEEN COUNSELED CONCERNING THE REPORT.	B. NAME AND GRADE	C. DATE
	D. SIGNATURE	

PART VI REVIEWER AUTHENTICATION

A. SOLDIER WAS RATED BY CORRECT RATER AND INDORSER. NO FURTHER ACTION REQUIRED. ☐
MY REVIEW RESULTS IN ACTION INDICATED BY INCLOSURES. ☐

B. ORGANIZATION AND DUTY ASSIGNMENT	C. NAME AND GRADE	D. DATE
	E. SIGNATURE	

PART VII MILPO CERTIFICATION

A. DATE REPORT ENTERED ON DA FM 2-1:	C.	D.
B. SOLDIER'S COPY GIVEN TO SOLDIER ☐ FORWARDED TO SOLDIER ☐ MAILED TO SOLDIER ☐ CERTIFIED MAIL NO _____	MILPO SIGNATURE	UIC

Figure 1b.

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TASK NUMBER: 874-896-4001

MONITOR AND EVALUATE TRAINING

CONDITIONS:

As a senior NCO, given guidance to monitor and evaluate a specific training session (individual or collective); training schedule applicable to your unit; Soldier's Manuals for the MOSs of your subordinates; FM 21-6; parent unit Training Evaluation Report Form; status report and lesson plan.

STANDARDS:

Within the time available, monitor and evaluate the training session and determine, as a minimum:

1. Whether complete performance-oriented training objectives have been developed.

2. Whether, as a result of the training, the soldiers undergoing training can perform the objective(s) and meet or exceed the established training standard(s).

PERFORMANCE MEASURES:

1. **General.** Monitoring and evaluation is a never-ending first and last step in the commander/training manager's efforts to plan and conduct efficient and effective training. Proper conduct of these activities provides the commander/training manager with information and data he needs to prepare or revise his plans for future training. With respect to monitoring and evaluation of training, the commander/training manager is concerned with two issues: efficiency and effectiveness.

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TRAINING EVALUATION REPORT

Unit _____ Date _____

Subject/Mission _____ Principal Trainer _____

Time Training Began _____ Soldiers Present for Training _____

Ended _____ Time Evaluator Arrived _____

Location _____ Departed _____

	YES	NO	N/A	Not Observed
1. Did the trainer have specific training objectives to accomplish (i.e., did all objectives (commander's and intermediate) specify the task(s) to be performed, the conditions of performance, and the training standard of acceptable performance)?	☐	☐	☐	☐
Comments:				
2. As a result of the training, did the soldiers perform successfully (i.e., meet or exceed the training standards) the commander's training objective(s)?	☐	☐	☐	☐
Comments:				
3. Were the resources adequate to accomplish the training?				
Time	☐	☐	☐	☐
Equipment	☐	☐	☐	☐
Training Area(s)/Classroom	☐	☐	☐	☐
Ammunition	☐	☐	☐	☐
Training Aids/Devices	☐	☐	☐	☐

Figure 1. Training Evaluation Report.

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	YES	NO	N/A	Not Observed
Trainers (principal & assistants)	☐	☐	☐	☐
Comments:				
4. Did the training progress in a logical sequence toward meeting the commander's training objective(s)?	☐	☐	☐	☐
Comments:				
5. Did the soldiers undergoing training appear to be motivated?	☐	☐	☐	☐
Comments:				
6. Did the trainer:	☐	☐	☐	☐
a. Inform the soldiers of the training objective(s) to be accomplished and give reason(s) for the training?	☐	☐	☐	☐
b. Arrange training area so all could see and hear well?	☐	☐	☐	☐
c. Use understandable words?	☐	☐	☐	☐
d. Demonstrate how to perform the objective(s) (when appropriate)?	☐	☐	☐	☐
e. Give all necessary information?	☐	☐	☐	☐
f. Avoid giving unnecessary information?	☐	☐	☐	☐
g. Require "walk through" performances of the objective (if appropriate).	☐	☐	☐	☐
h. Encourage questions?	☐	☐	☐	☐
i. Exhibit adequate knowledge of subject matter?	☐	☐	☐	☐
j. Show interest in helping the soldiers learn?	☐	☐	☐	☐
k. Make acceptable use of training aids?	☐	☐	☐	☐
l. Use assistant trainers to best advantage?	☐	☐	☐	☐
m. Require practice until the training standards were achieved?	☐	☐	☐	☐
n. Test soldier's ability to perform the commander's training objective?	☐	☐	☐	☐
Comments:				
7. Would you consider this training adequate?	☐	☐	☐	☐
Specific recommendations:				

Figure 1. Training Evaluation Report (cont).

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a. Training efficiency is determined by how well the trainer (and indirectly, the training manager) used what was available (i.e., the training resources — time, personnel, facilities, equipment, funds, etc.) to train the soldiers.

b. Training effectiveness is determined by how well personnel undergoing training can meet or exceed established performance standards specified in the commander's training objective(s).

2. **Training Evaluation.** There are many items in the preparation and conduct of training that can be evaluated. However, only two items are critical:

a. Have training objectives (the commander's and intermediate, if needed) been developed that specify task, conditions, and training standards?

b. As a result of the training, can soldiers perform the training objectives and meet or exceed training standards?

If the answer to both questions is yes, everything else is largely secondary (e.g., the appearance of training, the presentation techniques used by the trainer(s), the format of the lesson plans, etc.).

3. **How to Evaluate (Inspect) Training.** A good evaluator is concerned with the conduct of training. His evaluation should concentrate on:

a. Whether complete performance-oriented training objectives have been developed.

b. Whether, as a result of the training, the soldiers undergoing training can perform the objective(s) and meet or exceed the established training standard(s).

All other items are secondary, but by evaluating them, future training may be made more efficient. In performance-oriented training, the goal is for all the soldiers to successfully perform all the training objectives. The Training Evaluation Report (see figure 1) is provided as a guide for developing one for a unit.

REFERENCES:

FM 21-6, How to Prepare and Conduct Military Training Nov 75 (app D, pages 117-124)
TEC Lesson 901-071-0097-F, Evaluating Training.

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TASK NUMBER: 091-504-4001

ESTABLISH PRIORITIES FOR GENERAL MAINTENANCE

CONDITIONS:

As platoon sergeant/acting platoon leader given a scheduled period for maintenance or any available time in which to perform maintenance.

STANDARDS:

Priorities for general maintenance will:

1. Support all foreseeable unit missions in order of their occurrence (or criticality as determined by the commander).

2. Concentrate first on serviceablity of mission-essential equipment, then on all remaining items of equipment.

3. Maximize efficient use of personnel, time, equipment, facilities, and support available.

PERFORMANCE MEASURES:

1. The establishment of maintenance priorities should always be based upon the unit's mission. Study the mission; then decide (or the commander/platoon leader might specify) what equipment is necessary to accomplish your assigned mission. Next, you will evaluate the readiness status of the mission-essential equipment you have on hand. The status of this equipment will serve as an indicator which will tell you in what order your equipment needs to be raised to a readiness status. It will also tell if any possible supply actions will be necessary to remedy equipment problems such as shortages, missing parts, etc.

2. Once it has been determined what equipment is mission essential and what its status is, you will then concentrate your available resources on that equipment. You should ask yourself the following questions:

a. How many personnel do I have?

b. How much time do I have?

c. Do I have the necessary tools on hand?

d. Do I have the necessary parts on hand?

e. Can task be accomplished at my level of maintenance?

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To insure that priorities established are based upon the mission, resources, and commander's guidance, you should perform the following steps:

STEP ONE: List critical maintenance requirements.

STEP TWO: Identify the most critical tasks.

STEP THREE: Identify the critical tasks which can be accomplished with available resources.

STEP FOUR: Assign specific personnel to accomplish tasks.

STEP FIVE: Supervise and inspect to insure tasks are performed to prescribed standards.

3. If you follow the guidance as set forth in this training, the priorities that you set will support the accomplishment of your unit's mission by making maximum use of available time, personnel, and other resources.

REFERENCES:

None

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TASK NUMBER: 101-521-4051

REQUEST SUPPLIES AND LOGISTICAL SERVICES

CONDITIONS:

You have been given guidance from your unit commander or unit SOP to maintain an accurate status of supplies and to request replacement of shortages and any needed logistical support.

STANDARDS:

1. Maintain an accurate status of all accountable supply items and ammunition (without error); expendable supply items (to within 10%); and rations and water (to within 10%).

2. Report without error on status determined above, as requested or directed by unit SOP.

3. Request resupply of any item, as directed by your unit's SOP, before a shortage occurs which will detract from the operational effectiveness of your platoon.

PERFORMANCE MEASURES:

1. As platoon sergeant, it is your responsibility to perform a periodic check on the status/condition of your platoon's supplies and equipment. You should know that your role in the Army's logistical system is that of an assessor. Once you make an assessment of the supply situation in your platoon, you must immediately pass this information on to your commander/executive officer or supply sergeant.

2. At company level, there is no designated logistics officer. However, the company executive officer usually serves as the commander's prinicpal assistant for planning, organizing, and supervising the logistical operations of the company. He is responsible for supervising the feeding of the company, initiating timely requests to battalion for supplies, supervising the distribution of fuel and ammunition, and organizational maintenance. The company supply sergeant is the commander's principal enlisted assistant for supply matters; he requests and issues ammunition, petroleum-oil-lubricant (POL) supply, and replacement equipment. He maintains supply records, to include usage data.

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3. Your status report should identify the status of specified items. Normally, your report will be informally written or oral. However, your report is very important, in that it generates the initiation of the formal methods of requisitioning supplies. Your commander or unit SOP may establish guidance for the reporting of shortages or losses, to facilitate control and minimize the possibility of over/under requisitioning.

4. Normally, your unit's executive officer or supply sergeant will consolidate the individual platoon requests for supplies, rations, ammo, clothing, etc., and requisition supplies/logistical support from the next higher logistics section or support unit (if the item is not available within the company). The executive officer or supply sergeant can request the following items:

CLASS I ITEMS:	RATIONS.
CLASS II ITEMS:	CLOTHING, TOOLS, ADMINISTRATIVE AND HOUSEKEEPING SUPPLIES AND EQUIPMENT.
CLASS III ITEMS:	POL.
CLASS IV ITEMS:	CONSTRUCTION MATERIAL.
CLASS V ITEMS:	AMMUNITION.
CLASS VI ITEMS:	PERSONAL DEMAND ITEMS (CANDY, SOAP, CIGARETTES).
CLASS VII ITEMS:	MAJOR END ITEMS
CLASS IX ITEMS:	REPAIR PARTS.
CLASS X ITEMS:	MATERIEL TO SUPPORT NONMILITARY PROGRAMS.
MISCELLANEOUS ITEMS:	WATER, SALVAGE, MAPS.

5. It is your responsibility, however, to insure that members of your platoon are equipped with the supply items necessary for them to effectively perform their jobs and that the platoon is provided the logistical services necessary for their welfare and combat survivability. Your logistical responsibilities are to be aware of the status of supplies within your platoon and to make timely requests (through your supply section) by type and amount. You must also know the status of TOE equipment and request replacement items for equipment that is lost, damaged, or destroyed.

REFERENCES:

FM 100-5, Operations, Jul 76 (chap 12, pages 12-1 thru 12-13)

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TASK NUMBER: 121-030-1502

MAINTAIN ACCOUNTABILITY OF PERSONNEL (STATUS REPORT, CASUALTY REPORT)

CONDITIONS:

As platoon sergeant/acting platoon leader in a tactical environment, given a platoon engaged in real or simulated combat and a requirement to accurately report personnel status up the chain of command.

STANDARDS:

IAW the guidance provided in the performance measures:

1. Correctly maintain and submit a personnel daily summary IAW unit SOP.

2. Correctly fill out and submit casualty feeder reports and associated witness statements as required.

PERFORMANCE MEASURES:

1. As a leader, it is your responsibility to know who your men are and where they are at all times. Daily or frequent accounting of personnel helps to effectively control your men and resources, and makes available to the platoon leader/company commander the facts surrounding the status of his platoon/company.

2. Your status report would normally include the following information:

a. Names of soldiers.

b. Service numbers and grades.

c. Status (present, AWOL, sick call, etc.).

d. Total number of personnel assigned.

(1) Number physically present.

(2) Number not present.

Personnel status reporting helps the commander evaluate his readiness posture. More important, when this responsibility is performed daily, it helps to keep a unit organized and mission-oriented.

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3. When a soldier becomes a casualty, there are established procedures set by Army regulations which govern the compiling and dissemination of information regarding his condition. These set procedures are referred to as the Casualty Reporting System. The purpose of this reporting system is to gather, check, and promptly transmit complete and accurate information on casualties sustained under normal or hostile conditions. The information collected through this program is used to notify the casualty's family and interested government agencies. It is also used as a basis for payments of benefits and entitlements. These procedures include the designation of reporting responsibilities, evidence needed to substantiate a casualty's physical condition, the channels through which reports pass, responsibilities of inquests and boards of inquiry for missing persons, and rules for notifying the casualty's family, and release of casualty information.

4. AR 600-10 contains, in detail, the information on the following aspects of casualty reporting:

a. Applications and responsibilities.

b. Casualty reporting procedures under normal and hostile conditions.

c. Responsibilities and procedures for notifying the casualty's family and others.

d. Casualty reporting procedures during field exercises and movement of units to and from oversea areas.

e. Inquests and boards of inquiry for missing persons.

f. Prisoners of war in US Army custody.

5. The reporting of casualties is a command responsibility and is passed through command channels. The commander or major commander is responsible for the preparation of the reports. However, the commander must have a reliable source and that source is you. The commander will depend heavily on your account of the circumstances surrounding the casualty's incident. Therefore, your role in the system may be that of a reporter or collector of information — information which would be helpful to the commander in providing the most accurate account of what took place. A method of collecting data within an area of operation is the use of DA Form 1155 (Witness Statement on Individuals).

6. As a leader under either hostile or normal conditions, it is important that you familiarize yourself and your troops with the procedures and categories of the Casualty Reporting System as prescribed in AR 600-10.

REFERENCES:

AR 600-10, Casualty Reporting System, C1, C2, Mar 72 (chap 2, pages 2-1, 2-2; chap 3, pages 3-1 to 3-3; chap 6, pages 6-1 to 6-3; chap 8, pages 8-1 to 8-4)

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INTRODUCTION TO TACTICS
YOUR ROLE AS A SECTION LEADER

1

Your job is to train the members of your unit to think and act as an effective team in combat. The job of a TOW section leader is one of the most challenging job on the battlefield because, unlike other leaders, he leads men instead of units. The heavy antitank weapons (HAW) section sergeant must train his squads/crews to operate effectively on a battlefield that is heavily oriented toward armor/antiarmor weapons systems which have tremendous range and lethality. Because your unit is at the cutting edge of our nation's Army; you have a most demanding role. You must prepare your section to fight and WIN in all types of terrain, from the desert to the arctic, in all kinds of visibility and weather.

2

The individual soldier's ability and effectiveness are determined by how well he is trained and led. Even if all your men are good at their own tasks, in great physical shape, expert infantrymen, and want to do a good job, they will not be an effective fighting force unless you can focus their efforts toward a single goal or mission. This requires **TEAMWORK**. Building **TEAMWORK** in a HAW section is a great opportunity, challenge, and responsibility.

3

To achieve teamwork among your men, you must make sure they can perform the individual tasks lised in their Skill Level 1/2 Soldier's Manual, just as you must be able to perform the tasks listed in this manual. Individual skills are the foundation for the collective skills listed in the Army Training and Evaluation Program (ARTEP) for your unit. The ARTEP sets forth the missions which your section will have to perform frequently in combat; the ARTEP identifies the collective skills associated with these missions; finally, and most important ARTEP establishes the **MINIMUM STANDARDS** your section must achieve in training if it is to fight and **WIN** on the **BATTLEFIELD**.

4

The importance of these individual and collective skills must be emphasized constantly. On the **BATTLEFIELD**, you can expect to meet an enemy who is well armed with weapons that have greater range, accuracy, and killing power than those of past wars. These highly efficient weapons allow the enemy to **HIT** what he can **SEE** and **KILL** what he **HITS.** But you can survive and accomplish your mission if you reduce your unit's vulnerability by making full use of **COVER, CONCEALMENT,** and **SUPPRESSION.** You must learn to use **cover** to hide or disguise your positions or movement from the enemy's observation, and **suppression** to force enemy gunners to be ineffective and inaccurate with their fires. If you can use these three techniques and combine them with the all-important element of **teamwork**, success in training and in battle will follow.

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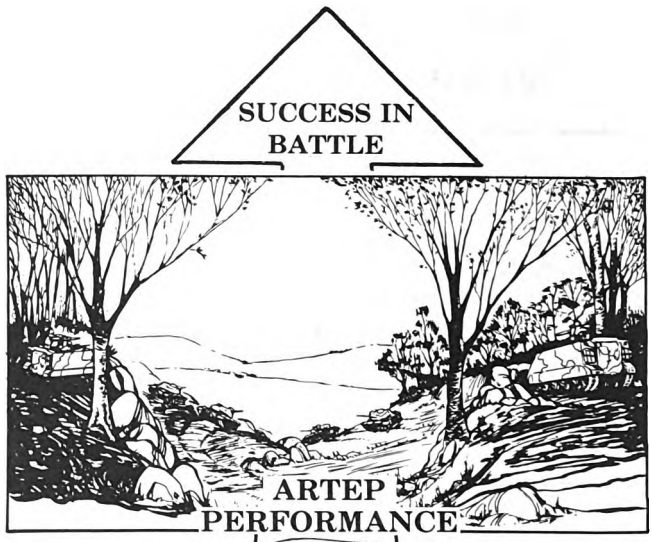
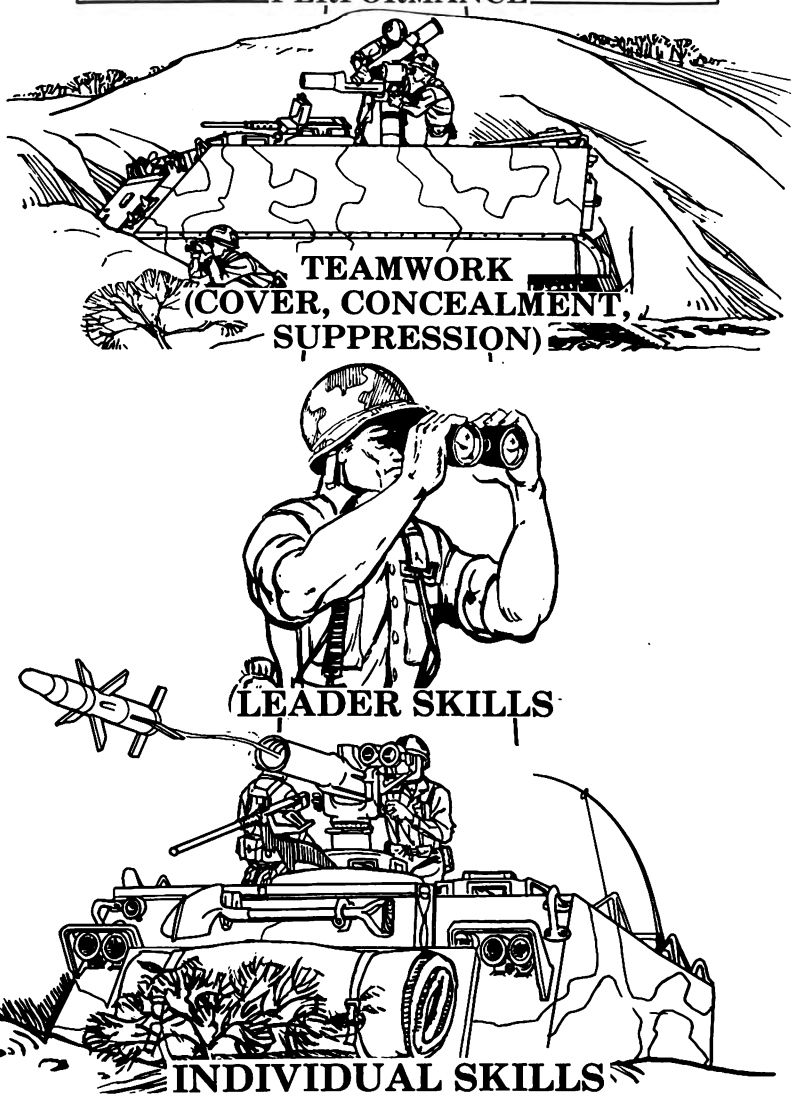


REMEMBER ....

Your role as a TOW section sergeant is to train your men to survive and WIN on the BATTLEFIELD. The steps that will lead you to this goal are shown in the sketch.



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TASK NUMBER: 071-316-2652

PREPARE AND ISSUE AN ORAL OPERATION ORDER (TOW)

CONDITIONS:

As a section leader/platoon sergeant, given a TOW section/TOW platoon and a company defensive or offensive operation order, and any available pocket-size reference (such as The Infantry Leader's Reference Card, GTA 7-1-27).

STANDARDS:

1. Within the time allotted, develop a clear and concise oral order for the offense, or defense, and issue it to your section/platoon. The order must be issued so that subordinate leaders understand their mission and any specific coordinating instructions.

2. As a minimum, a defensive order must contain:

   a. Mission of the platoon.

   b. Mission of the section.

   c. Location of the defensive position

   d. Scheme of maneuver.

   e. Type of emplacements and work priority.

   f. Plan for maintaining local security.

   g. Critical signal instructions.

   h. Location of section leader's position and company command posts.

3. As a minimum, an offensive order must contain:

   a. Mission of the platoon.

   b. Mission of the section.

   c. Concept of how the battle will be fought, to include:

      (1) Location of the objective.

      (2) Time of attack.

      (3) Location of the LD or LD/LC.

      (4) Order and route of march.

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(5) Consolidation instructions.

(6) Location of overwatch positions.

d. Critical signal instructions.

PERFORMANCE MEASURES:

1. Receiving an Operation Order.

a. The most important part of receiving an order is a clear understanding of what your unit has to accomplish in relation to the ground and to the other platoons or squads. Unless you know exactly what you are supposed to do, what the other units are doing, and where and when these actions are to be done, your chances of success are greatly reduced. After hearing the entire order, don't leave until all of your questions have been answered.

b. THINK THROUGH THE ORDER. As soon as you receive the order and understand the leader's plan, take a few minutes to go over the notes you took. As you think about the order, answer these questions:

(1) What MISSION(S) did I receive?

(2) How much do I know about the enemy?

(3) How does the TERRAIN and WEATHER influence the operation?

(4) What SUPPLIES or EQUIPMENT do I need? Do I need to assign SPECIAL TASKS to anyone?

2. Mission:

a. In analyzing your mission, identify what your unit is to accomplish. Be sure you know how much time you have to prepare. Make sure you are aware of any restrictions or special tasks that apply to your section.

b. A thorough understanding of the mission will allow you to establish a time schedule for your preparation. You will be told what time the operation is to begin and what time your unit must be ready to go. This allows you to allocate time to prepare for the mission. Identify the things that must be done to get ready and, working backwards from the "ready" time, allow your men time to accomplish each task. This technique is called the reverse planning sequence. Here is how it might work for a section leader:

1420: Commander said to be ready.

1415: Inspect assembly area.

1400: Inspect squad.

1315: Issue order to squad leader.

1300: Finalize section order.

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1200: Reconnoiter with commander/receive order.

1100: Issue warning order to section.

1040: Receive warning order.

3. Enemy.

a. Develop the best picture of exactly where the enemy is, what his strength is, and what kind of weapons and equipment he has. Tell your men as much as you know about how to destroy or suppress the kind of enemy you are likely to meet.

b. Sometimes, the enemy in a certain area will use the same pattern over and over. For example, if you know that the enemy habitually ambushes in the vicinity of trail junctions, make sure that all of your men know about it.

4. Terrain and Weather.

a. Most decisions pertaining to route, objective, sectors of fire, movement techniques, etc., are made by the commander. The section leader must study every bit of ground if he is to properly employ his men and equipment and gain an advantage over the enemy. Proper use of terrain will:

(1) Provide cover and concealment before, during, and after the battle.

(2) Increase the effectiveness of your fire.

(3) Decrease the effectiveness of the enemy's weapons.

b. You must also understand how weather can influence your men. Cold, heat, rain, or snow can create problems if you don't prepare your section properly.

5. Supplies, Equipment, and Special Tasks.

a. Resupply of ammunition.

b. Resupply routes.

c. Coordination for resupply of batteries (if applicable).

6. Issuing an Operation Order.

a. After you have received an operation order, thought it through, and prepared your own order, you must issue that order. Whenever possible, the commanders should issue their orders from a position that allows the section leaders to see the ground on which they are going to operate.

b. Section leaders should also try to issue their orders from vantage points that overlook the terrain. However, many times this will not be possible, and they will have to sketch the terrain on the ground. Terrain models are easy to construct and allow the leader to associate his order with terrain features so that each man will have an idea of what to expect once he gets on the actual terrain.

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THE OPERATION ORDER

An operation order is nothing more than the presentation of the information and instructions needed to accomplish a specific mission. The amount of detailed information included in your operation order depends on the information you received and the time you have to prepare.

Below is an example of how you can organize your order to insure that you tell your squad leader everything he needs to know to perform the mission you were given. The purpose of this format is to help you prepare your order. Use it as a checklist and remember that it is a guide. Give your order in language that your squad leader can understand. For example, you may prefer to say, "Here's how we are going to get the job done," rather than "Execution."

SITUATION

Information on enemy and friendly forces to include the mission and intended actions of at least the next higher headquarters and unit on your left and right.

MISSION

What your section is to accomplish.

EXECUTION

a. Your tactical plan for accomplishing the mission; for example:

(1) Plan and control TOW section fire (defense).

(2) General location of firing positions (primary, alternate, supplementary positions) (offense).

(3) Overwatch positions (offense).

b. Tasks (missions) of each squad (the platoon order) or of teams and individuals (the squad order).

SERVICE SUPPORT

Administrative information to include the plans for ammunition, resupply, casualty evacuation, and rations.

COMMAND AND SIGNAL

a. Signals and other control measures to be used during the operation.

b. Where you will be during the operation and where the next higher leader will be.

REFERENCES:

FM 7-7, The Mechanized Infantry Platoon and Squad, Sep 77 (chap 2, sec III, pages 2-11 thru 2-18)

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TASK NUMBER: 071-316-2601

PLAN AND CONTROL TOW SECTION FIRES

CONDITIONS:

Situation 1: As a TOW section leader, given two vehicle-mounted TOW systems with complete crews and a mission to cover a specific sector of fire (armor kill zone).

Situation 2: Targets move into your sector of fire.

STANDARDS:

Situation 1: The section leader will establish means of fire control to include:

a. Coordination for mutual antiarmor weapon support.

b. Inform squad leaders of:

(1) Engagement priorities.

(2) Sectors of fire.

(3) Target reference points (TRP).

(4) Phase lines.

(5) Fire patterns.

Situation 2: The section leader will give fire commands so the squad leader knows what target(s) is to be engaged.

PERFORMANCE MEASURES:

1. **Fire Control.** See task: **Control TOW Squad Fires.**

2. **Coordination of Fire.** The section leader coordinates fire within his sector(s) by the use of range cards which consists of control measures, the location of all firing positions for the TOWs in his section, and the targets they can cover from each position. This is a three-step process.

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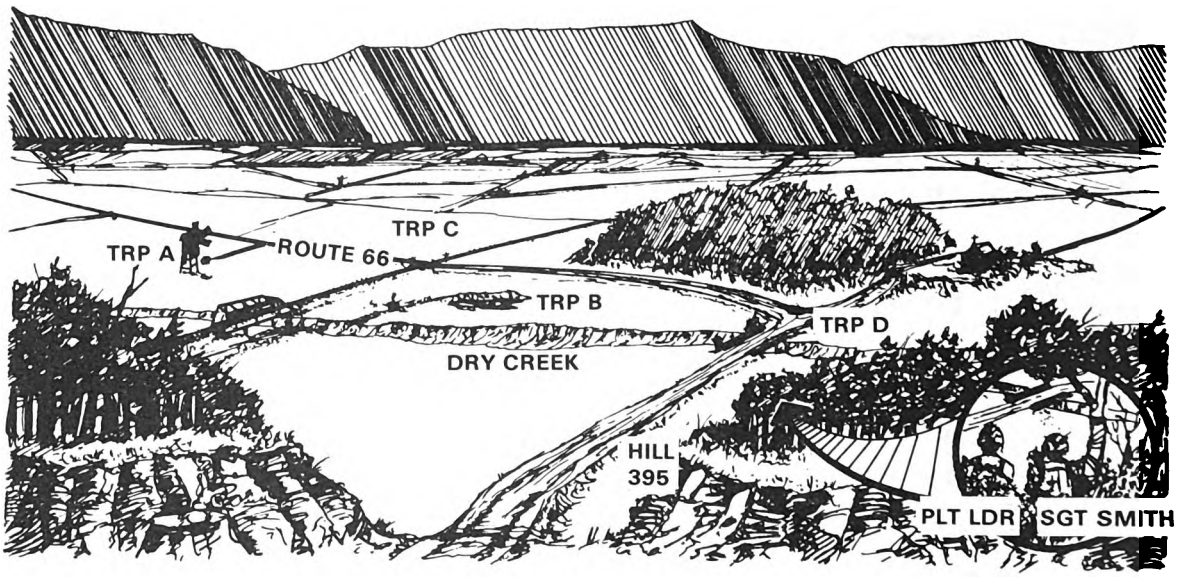
STEP 1: The AT platoon leader, company commander, or the weapons platoon leader gives initial directions to the TOW section leader. The directions include:

Primary sector of fire.	The sector of fire that is covered from the primary and alternate firing positions.
Secondary sector of fire.	The sector of fire that the section is prepared to cover, on order, from the primary or an alternate firing position.
Target reference points.	Easily recognizable terrain features which are used to control the massing and shifting of fire.
General location of firing positions.	Positions that can cover the sector(s) of fire, while optimizing the capabilities of and providing protection for the crew.

NOTE: If the section leader determines he cannot cover the assigned sector -- because of terrain limitations, etc. -- he must report this immediately to the man who assigned him the sector.

AN EXAMPLE: AT PLT LDR GIVING MISSION TO SECTION LDR



"Sgt Smith, your sector of fire is west of Farmers Highway between Dry Creek and Route 66. Select firing positions in the vicinity of 3d Platoon on Hill 395. Be prepared to fire in Sgt Brown's sector of fire which is east of Farmers Highway and north of Dry Creek, or into Sgt Jones' sector of fire, which is north of Route 66, east of the RR, and west of the cemetery. Mark the target reference points; the windmill is A; the water hole is B; the RT 66 RR intersection is C; RT 66 bridge is D. We are in general support so take your fire commands from me."

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STEP 2: The TOW section leader and squad leader pick exact firing positions (primary and several alternates) to cover the assigned sectors of fire, and point out the TRPs to the crews. If required, the section leader may select additional TRPs in the primary sector of fire.

STEP 3: Each squad leader has a range card prepared for his sector of responsibility. These range cards are forwarded to the TOW section sergeant, who reviews the range card to insure that his sector is covered. He then forwards the range cards to the platoon leader. The range cards give the location of each TOW firing position and the coverage of TRPs. Range cards are used by the platoon leader to prepare a platoon fire plan.

3. **Supervise Preparation of Range Cards.** (See task: **Prepare an Antiarmor Range Card (TOW).**) Range cards are always prepared for the primary firing position, and for as many supplementary positions as time will permit. They are used as a ready reference by the TOW gunner for quick and accurate fire.

REFERENCES:

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TASK NUMBER: 071-316-2801

CONSOLIDATE AND REORGANIZE A TOW SECTION FOLLOWING ENEMY CONTACT

CONDITIONS:

As a section leader attached or organic to a unit that has just repelled an enemy assault (defense) or has just seized an objective (offense).

STANDARDS:

Consolidate/reorganize your section well enough to:

1. Reestablish chain of command.
2. Redisitribute ammunition.
3. Supevise evacuation of dead or seriously wounded.
4. Resupply ammunition.
5. Compensate for personnel losses.
6. Prepare to continue the attack (offense).
7. Replace camouflage (defense).
8. Restore communications (defense).

PERFORMANCE MEASURES:

1. Consolidation and Reorganization — Offense. The section leader must plan the required consolidation and reorganization of the objective and include the plan in his attack order to the squad leaders. The plan is tentative and flexible and may be changed as the situtation requires, but it must be complete and in as much detail as possible.

a. Consolidation is the organizing and strengthening of a newly captured postion to secure it against a counterattack. The plan for consolidation includes a sector of fire for the section.

(1) Upon seizure of the objective, initial emphasis is on a hasty defensive posture to prevent a successful enemy counterattack. You must observe along enemy approaches.

(2) Request from the commander the general location and the sector of fire of your section.

(3) Make necessary corrections in fire planning and coordination.

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b. Reorganization is the restoration of order in your section and all actions necessary to prepare your section for further combat.

(1) Reestablish the chain of command. Insure that all key positions are filled by the remaining section members and that all members are made aware of the new chain of command.

(2) Evacuate casualties and request replacements.

(3) Redistribute ammunition within the section.

(4) Resupply ammunition. Pick up ammunition at a predesignated point, if coordinated, or take a quick inventory and request resupply through command channels.

(5) Insure that TOWs are manned and positioned to cover assigned sector of fire.

(6) Give your commander a situation report (SITREP) that includes the tactical situation, personnel strength, and ammunition-vehicle-weapon status.

(7) Plan for maintenance on TOWs and vehicles, where applicable, and if tactical situation allows it.

2. Consolidation and Reorganization — Defense. When an enemy assault is repelled,you must immediately prepare your section to meet a renewed assault. To accomplish this task, you must follow many of the same procedures used for the reorganization after an offensive action.

a. Reestablish the chain of command.

b. Redistribute/resupply ammunition.

c. Request instructions for location and sector of fire of TOW section.

d. Reestablish communication. Check wire to insure that it was not cut during the attack. Change your pyrotechnic signals if you think the enemy may have learned what they mean.

e. Evacuate and replace casualties.

f. Restore camouflage and improve positions. Take care not to overcamouflage a position. If it was not found during the first assault, chances are it will not be found during the next try.

g. Resupply after inventory is taken and submit requests for all needed supplies.

REFERENCES:

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TASK NUMBER: 071-329-1019

USE A MAP OVERLAY

CONDITIONS:

Given a military map and a map overlay containing any of the graphic symbols shown in figure 2.

STANDARDS:

Without the use of references:

1. Draw all graphic information on the overlay, to within 100 meters on the map, using grid coordinates or terrain features.

2. State the meaning of each graphic symbol.

PERFORMANCE MEASURES:

1. **Map overlays consist of the following:**

a. Orientation. A means by which the overlay is positioned on a map.

b. Plotting of detail. Information pertaining to a specific mission or operation is shown using graphic symbols.

c. Marginal information. The overlay title, date and time of information, map reference, who prepared the overlay, and any nonstandard graphic symbols used or other additional information needed to use the overlay. It is placed in a corner of the overlay, usually the lower right.

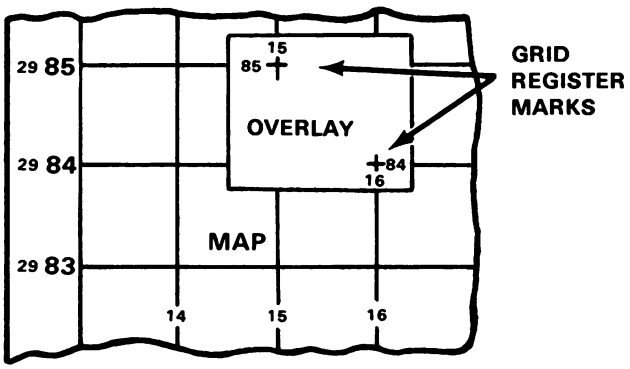

Figure 1. Registering the overlay.

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d. Classification. The security classification is entered at the top and bottom of the overlay. Make certain that you handle overlays as you would documents with similar classification.

2. **To use a map overlay:**

a. Obtain the map sheet(s) listed in the marginal information.

b. Locate the grid intersections on the map which correspond to the grid register marks located in opposite corners of the overlay.

c. Place the overlay on the map so that the grid register marks fall exactly on top of the grid intersections (figure 1).

d. Since the overlay material is semi-transparent, you will be able to see the map through it. Therefore, you can identify map locations (by coordinates or terrain features) to which the graphic information pertains.

e. Locate the points and areas identified on the ground.

f. Take action appropriate to the graphic information given.

3. **As a minimum you must be able to recognize the graphics in figure 2 without the aid of any references.**

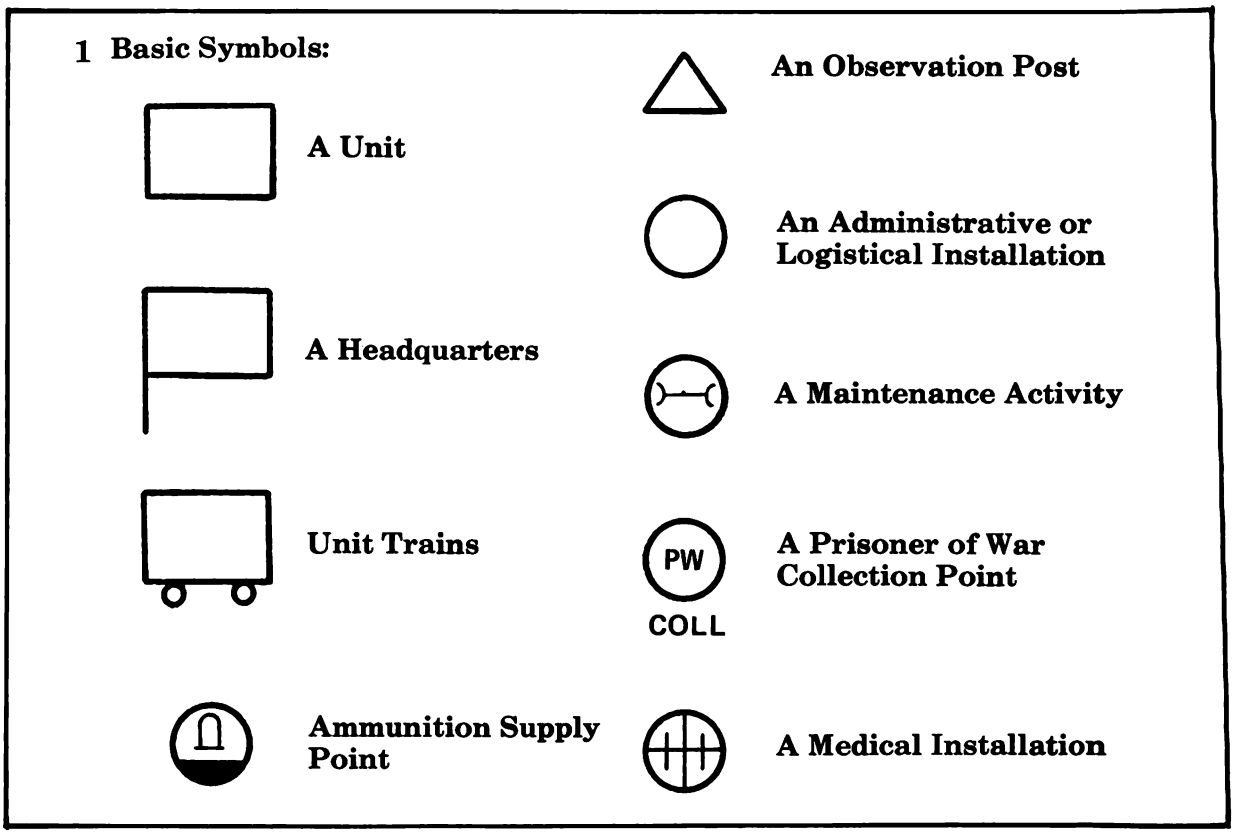

Figure 2.

2-VIII-A-11.2

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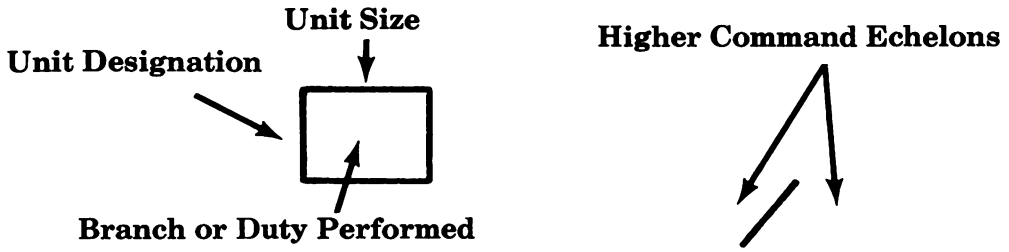
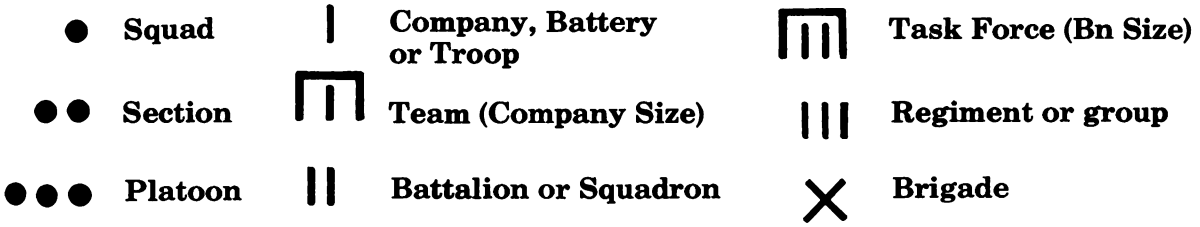
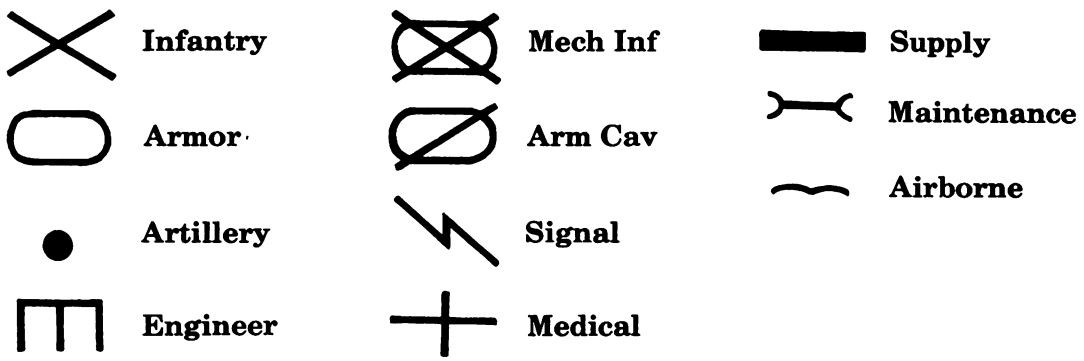
2 Development of a unit symbol:



3 Unit Size Symbols:



4 Branch symbols:



5 Enemy units are depicted in red or as double lines:

Enemy Platoon (Inf)

6 Proposed or future locations are depicted using broken lines:

Figure 2. (Continued)

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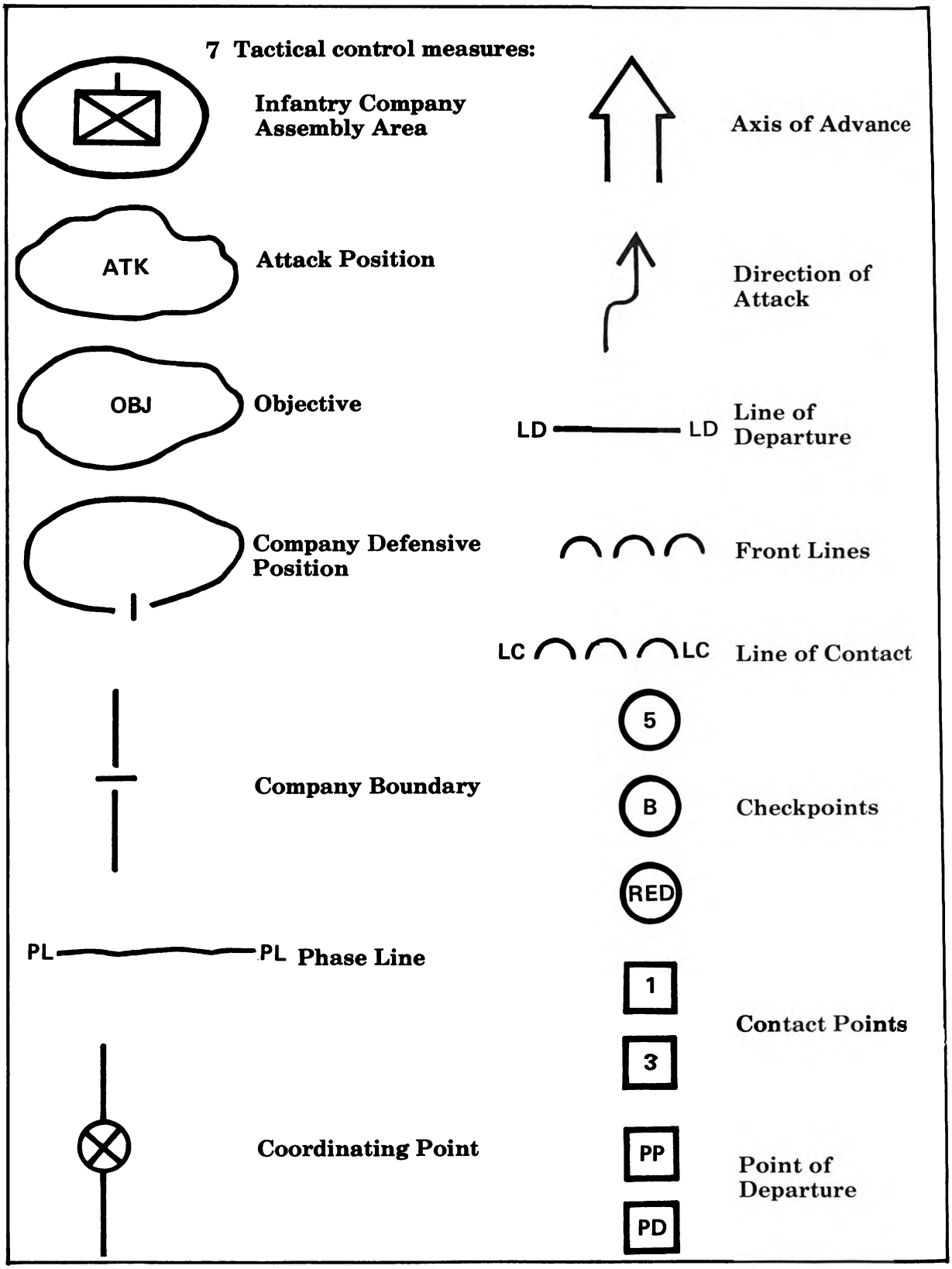

Figure 2. (Continued)

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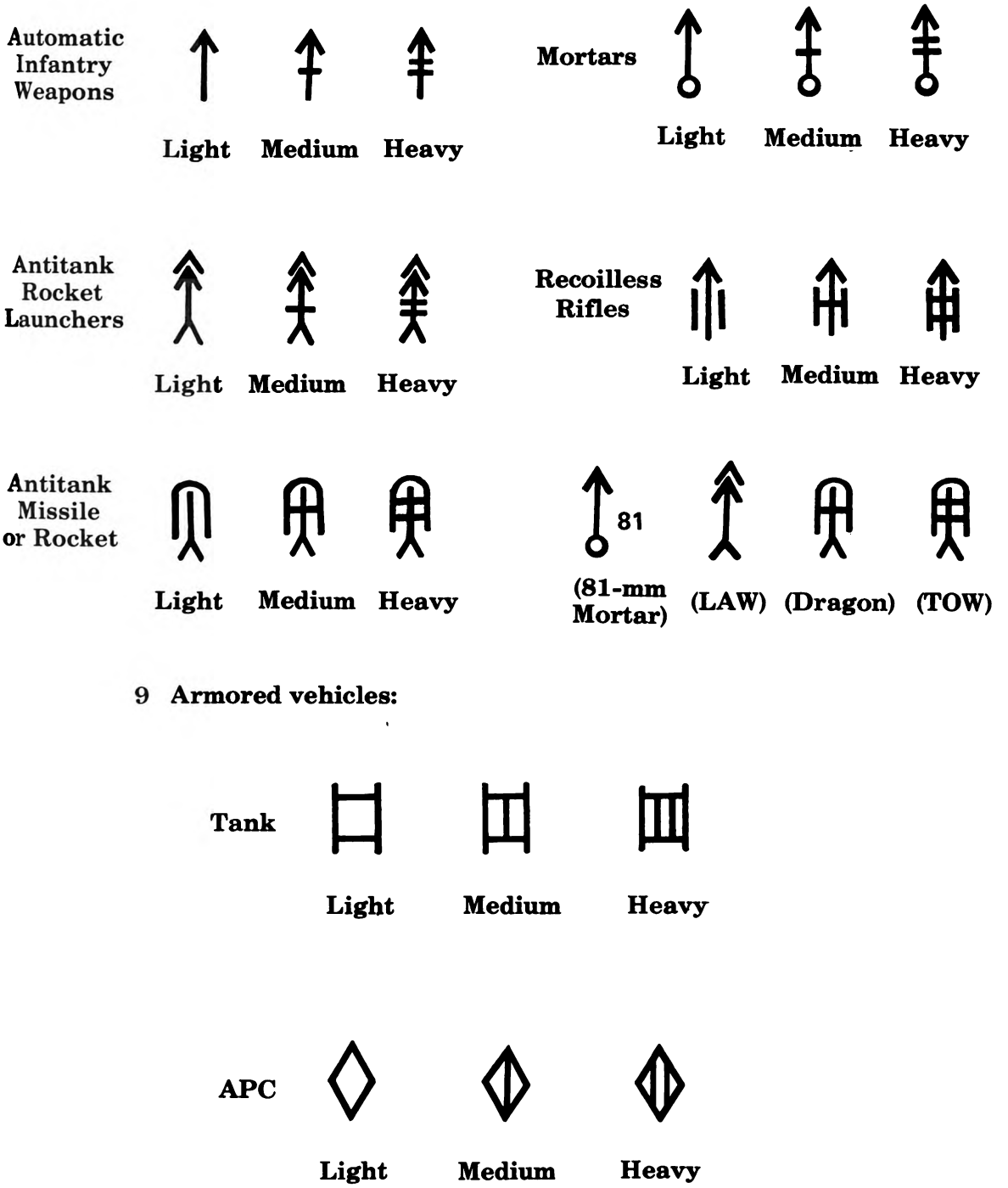
8 Weapons symbols:



9 Armored vehicles:

Figure 2. (Continued)

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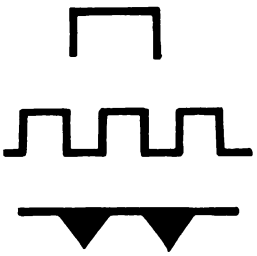
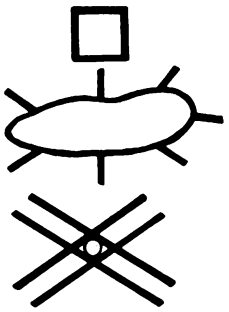
10 Fortifications and obstacles:



Weapon Position Fighting

Trench System

Tank Ditch



Pillbox or Casement

Strongpoint

Completed Roadblock

11 Wire:

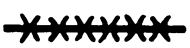
Unspecified

Concertina, Single

Concertina, Multiple

Fence, Single

Fence, Double



Double Apron Fence

Low Wire Fence

High Wire Fence

Tripwire

12 Mines:

Unknown

Antipersonnel

Antitank

Antitank, Boobytrapped

Boobytrap

Figure 2. (Continued)

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1 3 Indirect fire symbols:

+ AB0010	**Target (w/number)**
+ RP	**Reference Point**
⊢—⊣	**Final Protective Fire (FPF)**

Figure 2. (Cont'd)

REFERENCES:

FM 21-26, Map Reading, Jan 69 (chap 7, pages 7-1 thru 7-4, para 7-1 thru 7-3)
FM 21-30, Military Symbols, May 70 (chap 2, page 2-2 thru 2-4, app E and F, pages E1 thru F7)

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TASK NUMBER: 071-316-2651

RECOMMEND EMPLOYMENT OF THE TOW

CONDITIONS:

As an antitank platoon sergeant, given the requirement to employ the antitank platoon in a defensive role, a 1:50,000 scale military map of the area of operations, and the commander's concept of the operation.

STANDARDS:

Recommendation must, as a minimum:

1. Provide for mutual support.
2. Exploit TOW range.
3. Avoid conspicious terrain features.
4. Provide for flank engagement (when possible).
5. Provide for dispersion.

PERFORMANCE MEASURES:

1. **General.** As with all weapons systems, the TOW has advantages and limitations. Certain basic considerations can be followed in employing TOW to best advantage.

2. **Basic Employment Considerations.**

a. Provide for Mutual Support. Mutual support is the help that weapons/units give to each other to make the most of their capabilities and to overcome their limitations.

(1) Employ TOW in pairs (by section). To insure continuous antiarmor coverage of an assigned sector of fire, TOWs should be employed in pairs with overlapping sectors of fire so they can support each other whenever possible. By doing this, one system can fire while the other is reloading or moving to an alternate position. TOWs should be employed separately only when there is no other way to cover the armor avenues of approach or to overwatch the attacking company zone (figure 1).

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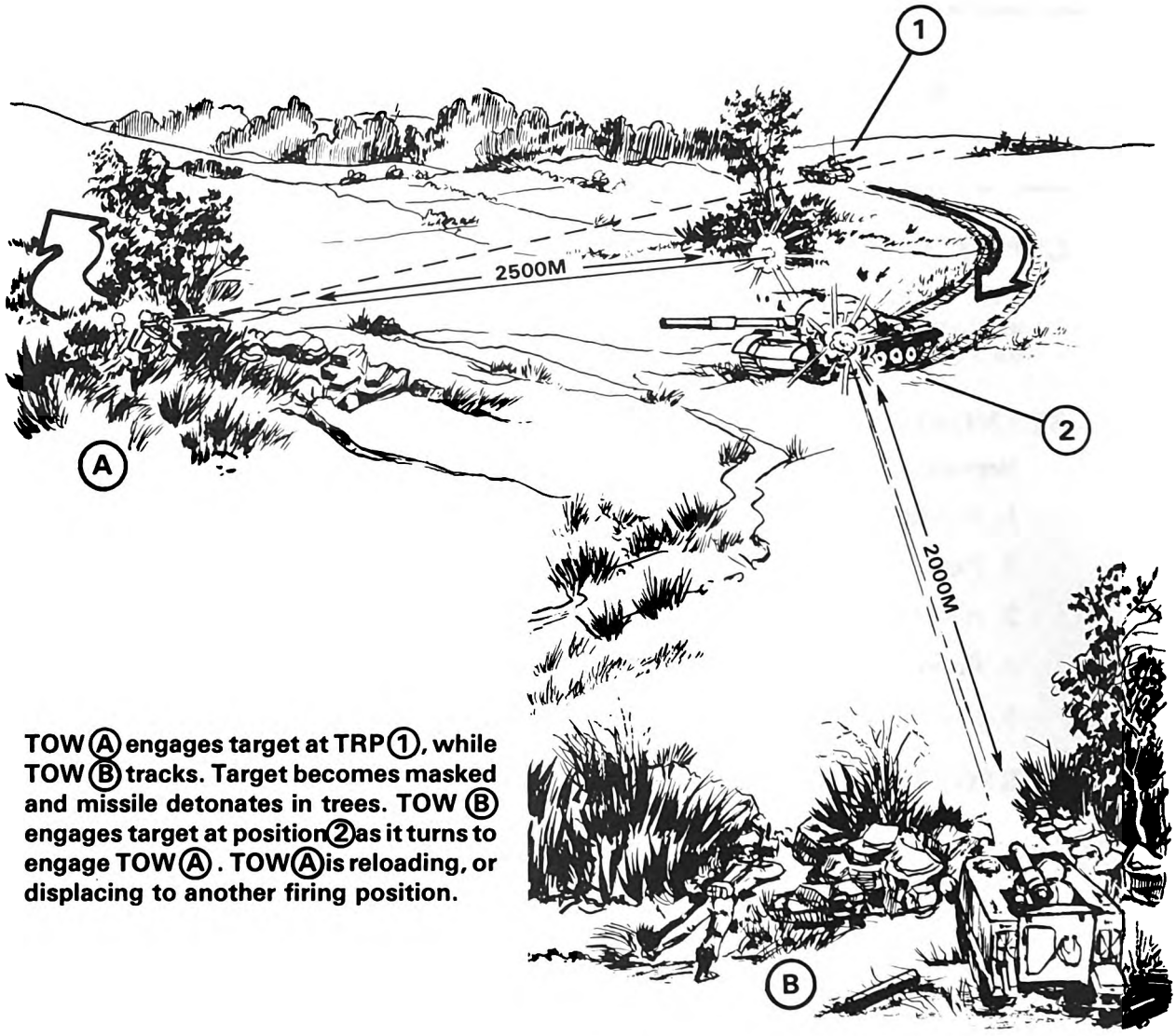

TOW (A) engages target at TRP (1), while TOW (B) tracks. Target becomes masked and missile detonates in trees. TOW (B) engages target at position (2) as it turns to engage TOW (A). TOW (A) is reloading, or displacing to another firing position.

Figure 1.

(2) Integrate TOW fires with other antiarmor weapons. Position TOWs within range of other antiarmor weapons so they can support each other by fire when under mounted attack. TOWs and tanks should be positioned to provide long-range coverage along the high-speed avenues of armor approach to insure that continuous antiarmor fires are delivered on attacking enemy forces. Dragons and LAWs should be positioned along the armor approaches with more restricted fields of fire to allow TOWs to engage the long-range targets and to add depth to the defensive area.

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(3) Integrate TOWs with nearby infantry for security. TOW crews by themselves are extremely vulnerable to attacks by mounted as well as dismounted infantry. To provide security against such attacks, TOWs should be positioned to take advantage of infantry blocking dismounted and concealed mounted approaches leading to TOW positions (figure 2).

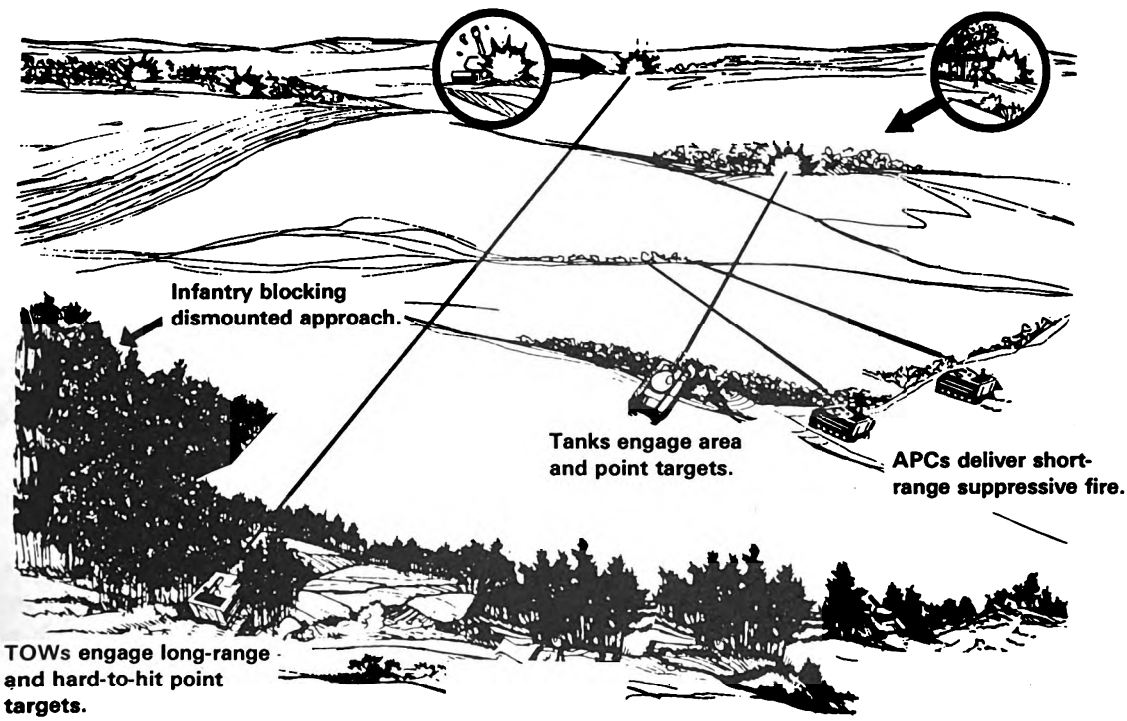
Infantry blocking dismounted approach.
Tanks engage area and point targets.
APCs deliver short-range suppressive fire.
TOWs engage long-range and hard-to-hit point targets.

Figure 2.

b. Exploit TOW Range. The most significant advantage of TOW is that it is more accurate than most tanks at ranges beyond 1500 meters. The major limitation is that the TOW crew is exposed to enemy suppressive fires while firing. Therefore, the principal factors to consider when positioning TOW for employment are twofold: EXPLOIT THE CAPABILITIES OF THE WEAPON and PROTECT THE CREW FROM COUNTER-MEASURES SUCH AS ARTILLERY AND TANK FIRE. (See figure 3.)

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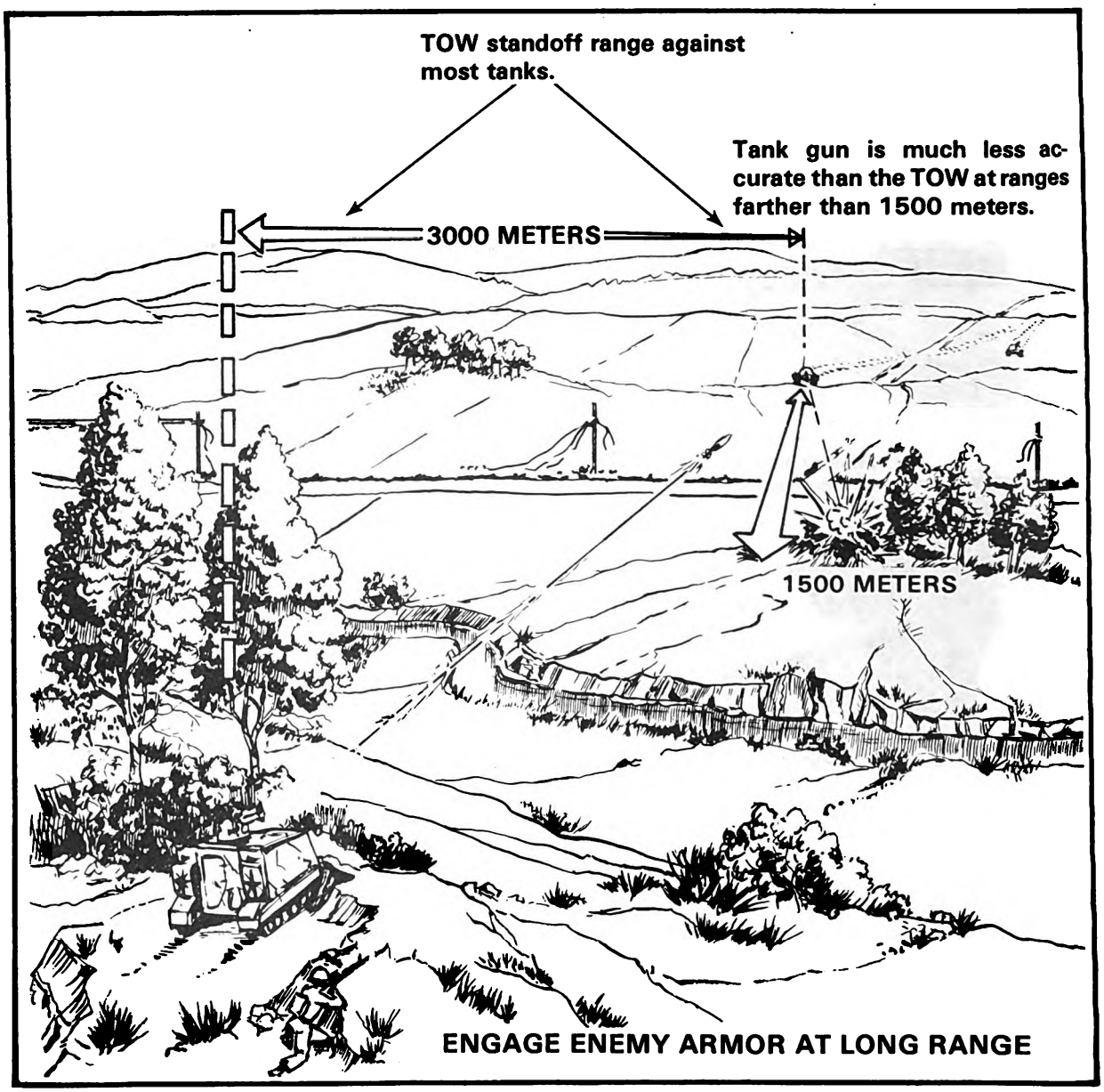
TOW standoff range against most tanks.
Tank gun is much less accurate than the TOW at ranges farther than 1500 meters.
3000 METERS
1500 METERS
ENGAGE ENEMY ARMOR AT LONG RANGE

Figure 3.

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c. Avoid Conspicuous Terrain Features. Always use terrain to your best advantage. Virtually every piece of terrain has features that can enhance or degrade mission accomplishment with the TOW. Conspicuous terrain features, such as road junctions, hilltops, lone buildings or trees, will attract the enemy's attention, and he will probably have registered on them. As a leader, you must be able to recognize those terrain features that will serve the chances for success with the TOW, and lessen its vulnerability to detection. See figure 4 for examples.

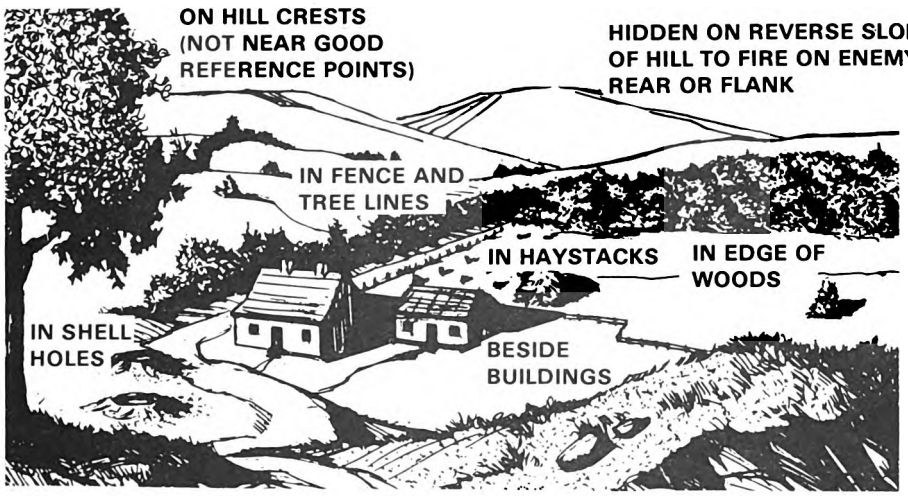

Figure 4.

d. Provide for Flank Engagement. TOW frontal fire against tanks must be avoided, as a general rule. The crew of a launcher so sited is extremely vulnerable, particularly at shorter ranges. When enemy tanks are advancing, their firepower and observation are oriented to the front, and it is difficult for them to detect and trace a missile launched from a flank (figure 5).

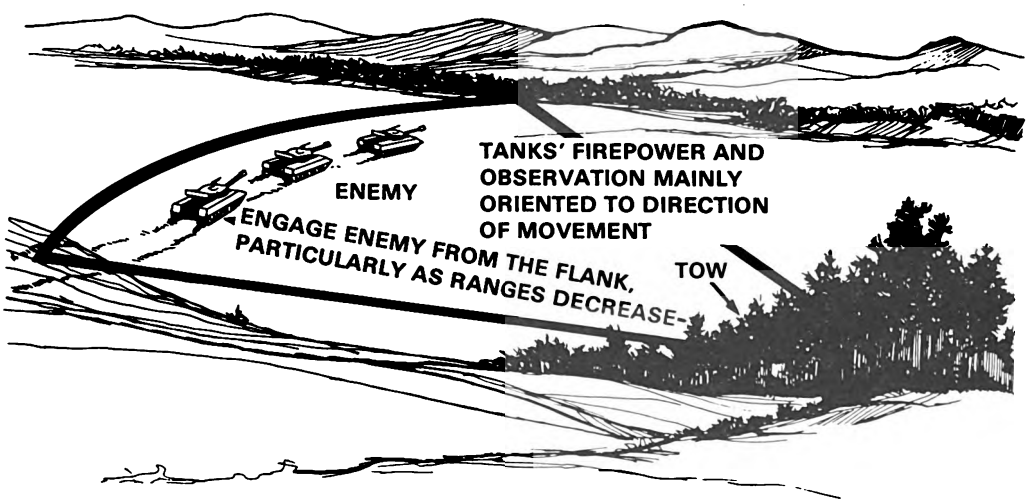

Figure 5.

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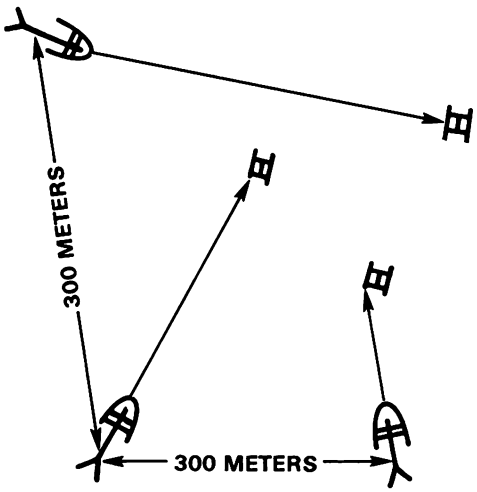
However, a trailing enemy tank may see the launch signature, or crew movement, and knock the weapon out at once or stalk it from the rear. Therefore, in addition to firing from the flank, the weapon must be sited so that it is in defilade from the direction of the enemy. This means there must be something between the weapon and the tanks not being fired at — a parapet or wall, or natural cover. Flank concealment is necessary, but flank defilade, giving cover from fire, is preferable. Concealment of flash is also essential, not only from the following tanks, but from the enemy's OP as well; a weapon seen is a weapon lost.

e. Provide for Dispersion. If the section leader can control the fires of both squads, TOW squads should be separated a minimum of 300 meters (either laterally or in depth) so no two squads can be suppressed at the same time by the fires of a single volley of artillery from one battery. This separation, of course, is dependent upon terrain and the section leader's capability to control the fire and movement of the squads (figure 6).



In this sketch, the size of a 152-mm howitzer battery open sheaf, drawn to scale would be only this large: ▭ . From this, one can see that it would take large volumes of artillery to effectively suppress such dispersed ATGMs.

Figure 6.

REFERENCES:

FM 71-1, The Tank and Mechanized Infantry Company Team, Jun 77 (app C, page C-1 thru C-5)

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TASK NUMBER: 071-316-2556

DETERMINE METHOD OF MOVEMENT (TOW)

CONDITIONS:

As a section leader, given a TOW section, two TOW sections, or a TOW section and tank(s), and a situation when the elements are moving by bounds between overwatch positions.

STANDARDS:

The method of movement selected must provide overwatch protection for the moving elements.

PERFORMANCE MEASURES:

1. TOW section movements. TOW sections normally move in coordination with other forces, either within the march column or as part of a force located in an overwatch position. When used in an overwatch role, the TOW section will cover the movement of the bounding element of the force and will move with the overwatching force from overwatch position to overwatch position. When moving forward or rearward between overwatch positions, the section will normally be covered by another TOW section and/or tanks. Occasionally, TOW squads within a section may cover the movement of each other between overwatch positions when other TOW/tanks are not available.

NOTE: The distance between overwatching positions will be influenced by the terrain but should not exceed 1,000 meters. In this way, the overwatch can engage 2,000 meters beyond the bounding element. REMEMBER--STANDOFF RANGE.

a. Each section will move forward by squads within the sections.

b. Each section will move rearward by section.

c. TOW section moves with a tank(s). Often, TOW(s) will work with tanks. The tank is an assault weapon; the TOW is not. Tanks, because of their better crew protection, more rapid rate of fire, greater mobility, and larger loads of ammunition, will normally engage enemy armor at closer ranges while TOW supports their movement from overwatch positions behind the tanks (or to the flanks) and engage targets at longer ranges.

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NOTE: When displacing to the rear, TOWs move back first, covered by the tanks. Once the TOWs are in firing positions from which they can cover the movement of the tanks, the tanks displace to new positions.

2. Use of terrain (terrain driving).

a. No matter which technique of movement is being used--traveling or bounding--terrain driving should habitually be practiced. It is essential when contact is possible or expected. Squad/section leaders should give the driver clear, specific instructions as to the route which affords the best use of available cover and concealment.

b. Follow these terrain driving rules to reduce exposure to effective enemy fire:

(1) Use all available cover and concealment.

(2) Never skyline.

(3) Don't move directly forward from a defilade position.

(4) Cross open areas quickly.

NOTE: The TOW tube and tracker can be kept in the ready-to-fire position for moves over short distances. However, for extended moves over rough terrain, or during movement in a formation, the weapon should be kept inside the vehicle to prevent damage due to vibration or recognition by enemy OPs.

c. When moving between overwatch positions, every effort must be made to protect the TOW section by using the terrain to cover and/or conceal its movement from enemy observation and fire.

d. When terrain between overwatch positions does not conceal movement, smoke or artillery and automatic weapons suppressive fire is placed on known or likely enemy positions while TOW sections move between positions as fast as possible.

REFERENCES:

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TASK NUMBER: 071-316-2557

SELECT PRIMARY, ALTERNATE, AND SUPPLEMENTARY TOW WEAPON POSITIONS

CONDITIONS:

As a section leader, given the requirement to select a general location for the primary/alternate and supplementary positions, and a primary sector of fire and a sector of fire not covered by the primary/alternate positions.

STANDARDS:

Section leader will select:

1. A primary position with best shot into the assigned sector of fire.

2. An alternate position that covers the same sector of fire as the primary position.

3. A supplementary position from which to engage targets outside the primary sector of fire which cannot be engaged from either the primary position or alternate position.

PERFORMANCE MEASURES:

1. Section leader designates the general locations for primary/alternate and supplementary positions.

2. Section and squad leader select their firing positions. (See task: Occupy a TOW Firing Position.)

3. The squad leader briefs section leader on the TOW firing positions he selected.

4. Positions selected as a minimum must:

a. Have dispersion. Whenever possible, alternate positions should be at least 300 meters from the primary position. This prevents the fires of an enemy artillery battery that may be firing on the primary position from also impacting on the alternate position. Terrain restrictions may prohibit this, but it should always be a consideration when selecting alternate positions.

b. Exploit TOW accuracy out to 3,000 meters. This long range gives the TOW a decided advantage at ranges greater than 1,500 meters in that it can engage enemy armor, yet be relatively safe from return tank fire. This is due to the **standoff** achieved when the range of the weapon is maximized.

(1) This exploitation of the range both optimizes the fires of the weapon and provides a measure of protection to the crew from return tank fire.

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(2) Often, more than 1,500 meters range can be gained by positioning TOW to the flank, or farther to the rear of the line of enemy contact, or farther from its sector of fire.

c. Have mutual support. Mutual support provides a degree of protection for the TOW crew by insuring complete, continuous coverage of enemy armor vehicles. It consists of two parts:

(1) Employ the TOW section in such a manner that its fires interlock with and support each other and/or other antiarmor weapons. Both TOWs within the section should be able to cover as much of the sector of fire assigned to the section as possible.

(2) Make every effort to position the TOWs within the section so that they can engage enemy armor vehicles assaulting other TOW positions.

d. Integrate with nearby infantry for security. TOW crews by themselves are vulnerable to not only armor but also to dismounted infantry attacks against their position; therefore, they should be integrated with nearby infantry wherever practicable.

e. Engage the enemy from the flank. Frontal fire must be avoided as a general rule. A launcher so sited will seldom live very long. This is particularly true at shorter ranges. When advancing, tanks' firepower and observation are generally oriented to the front, making it difficult to detect and retrace a missile launched from its flank.

Even this retracing to a flank is not impossible, though. A trailing tank may see the launch signature, or crew movement, and knock the weapon out at once, or stalk it from its rear. Therefore, in addition to firing from the flank, the weapon must be sited so that it is **defiladed** from the direction of the enemy. This means that there must be something between the weapon and the tanks not being fired at--a parapet or wall, or natural cover. Flank concealment is necessary, but flank defilade, giving cover from fire, is infinitely preferable. Concealment of flash is essential, not only from the following tanks but from the enemy's OPs as well. A weapon seen is a weapon lost.

REFERENCES:

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APPENDIX B
CONSOLIDATED LIST OF REFERENCES
(FM 7-11H3/4)

FIELD MANUAL (FM)

FM 3-8	Chemical Reference Handbook, C1-4	Jan 67
FM 3-12	Operational Aspects of Radiological Defense, C1, 2	Aug 68
FM 3-50	Chemical Smoke Generator Units and Smoke Operation, C2	Apr 67
FM 7-7	The Mechanized Infantry Platoon and Squad	Sep 77
FM 8-15	Medical Support in Divisions, Separate Brigades, and the Armored Cavalry Regiment	Sep 72
FM 8-35	Evacuation of the Sick and Wounded	Jan 77
FM 21-6	How to Prepare and Conduct Military Training	Nov 75
FM 21-20	Physical Readiness Training, C1	Mar 73
FM 21-26	Map Reading	Jan 69
FM 21-30	Military Symbols, C1	May 70
FM 21-40	NBC Defense	May 71
FM 21-41	Individual NBC Defense	Oct 77
FM 30-5	Combat Intelligence	Oct 73
FM 71-1	The Tank and Mechanized Infantry Company Team	Jun 77
FM 100-5	Operations	Jul 76

ARMY REGULATION (AR)

AR 600-10	The Army Casualty System, C1, 2	Jan 76

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TECHNICAL MANUAL (TM)

TM 3-220	CBR Decontamination, C1, 2	Nov 67
TM 9-1340-203-20	Organizational Maintenance Manual: Rocket Launcher M190 with Subcaliber 35-mm Practice Rocket M73	Jul 73
TM 9-2350-259-10	Operator's Manual for Combat Vehicle Anti-tank Improved TOW Vehicle, M901	
TM 9-6130-470-12	Operator's and Organizational Maintenance Manual for Battery Charger PP4884 (XO-1)/T	Dec 75
TM 11-5855-254-14 and P	Operator's Organizational, Direct Support, General Support Maintenance Manual Including Parts and Special Tools List for Battery Charger PP 7382/TAS	Jun 79
TM 11-6665-209-15	Radiac Set, AN/PDR-27J, L, and Q, C3, 6, and 7	Sep 66
TM 11-6665-213-12	Operator and Organizational Maintenance Manual: Radiacmeter IM-174A1/PD, C1, 2	Jul 69
TM 11-6665-230-15	Radiac Set, AN/PDR-27R, C1 and 2	Jun 67
TM 11-6665-232-12	Operator and Organizational Maintenance Manual: Radiacmeter IM-174A1/PD, C1-5	Aug 67

DA PAMPHLETS

DA Pam 350-SQT	A Guide for Leaders	Apr 77
DA Pam 623-1	Preparation of Enlisted Evaluation Reports	May 75

TRAINING EXTENSION COURSE (TEC) LESSONS

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QUESTIONNAIRE

SOLDIER'S MANUAL

To provide you a better manual, please give us your comments after studying this field manual. Note that some of the questions apply to soldiers only and some to trainers only. Please fill out the following before continuing. If you request an answer or wish a reply, please include your name.

MOS _____ **RANK** _____ **TIME IN GRADE** _____

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1. **The following comments are a result of my review of the 11H Soldier's Manual for Skill Level** _____.

2. **My duty position is:** _____

_____

_____

_____

3. **The Soldier's Manual contains only the critical combat skills the infantryman needs to fight and survive on the battlefield. I think it contains:**

☐ Too many tasks ☐ The right number ☐ Too few tasks

4. **Are there tasks that should be added?**

☐ Yes (See the list below) ☐ No

_____ **Continue in block 15 if needed.** _____

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5. Are there tasks that should be dropped?

☐ Yes **(See the list below)** ☐ No

Continue in block 15 if needed.

6. How difficult was it to find the tasks which you must perform?

☐ Easy, I had no trouble.

☐ Not difficult, but I think the instructions were confusing. **(Please tell us how to improve the instructions in the space below).**

☐ Difficult, I had to have someone explain how to do it.

Continue in block 15 if needed.

7. Will the Soldier's Manual help you do a better job as an infantryman?

☐ No, I don't think it will help at all.

☐ Yes, it will be a big help.

☐ Yes, but it will be better if improvements are made. **(List the improvements you would like to see.)**

Continue in block 15 if needed.

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8. Did the conditions for each task describe the real conditions under which you usually perform each task?

☐ Yes ☐ No, I would change:

Continue in block 15 if needed.

9. The STANDARDS are:

☐ Too easy ☐ Too hard ☐ About right

10. Can the PERFORMANCE MEASURES help you perform the task to the standard?

☐ Yes ☐ No If you check NO please explain in block 15.

11. (Trainers only): Will the Soldier's Manual help you as a trainer in improving the combat proficiency of 11H soldiers?

☐ Yes, I think it will be a big help.

☐ Yes, but the Soldier's Manual needs to be changed as I recommended in question 10.

☐ No, it will not help at all **(please explain in block 15).**

12. Which of the following best tells what an infantryman must be able to do in combat?

☐ Job Description in AR 611-201, Personnel Selections and Classification.

☐ Study Guides for MOS Tests.

☐ Soldier's Manual.

☐ 11B Study Reference Manual.

☐ Other _____

Continue in block 15 if needed.

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13. **If I could make any improvement(s) in the Soldier's Manual it (they) would be:**

Continue in block 15 if needed.

14. **Is the artwork used in this field manual understandable and correct for each task?**

☐ Yes ☐ No

If you checked no, please make suggestions concerning replacement of artwork in block 15 or enclose suggested line drawing, sketch, photo, etc., with this questionnaire.

15. **Comments.**

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FM 7-11B4	( )	FM 7-11C4	( )	FM 7-11H/CM	( )
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FM 7-11H3/4

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